DOES CARING AFFECT SHARING? ROLE OF RELATIONSHIP NORMS IN RESPONSES TO ONLINE REVIEWS OF P2P SERVICES

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Abstract

In peer-to-peer (P2P) services, individuals share unused resources with strangers (e.g., accommodations, meals) creating novel service relationships. In such relationships between strangers, there is high information asymmetry, which is resolved through online reviews from previous users. We examine the role of relationship norms in consumers' responses to online reviews of P2P service providers. We hypothesize that consumers with communal (vs. exchange) orientation will be more responsive to online reviews of P2P service providers. Five experiments indicate that consumers' communal (exchange) orientation increases their responsiveness to online reviews of 1) P2P (vs. commercial) service providers, 2) amateur (vs. professional) P2P service providers, and 3) warm (vs. competent) P2P service providers. The match of consumers' communal orientation with the type of service provider is mediated by their processing fluency of the service offering. Correlational analysis of online reviews on a P2P accommodation platform shows that users' communal orientation is related to positivity of online reviews. The findings which demonstrate a key role of relationship norms in consumers' responses to online reviews in the P2P services context generate actionable managerial implications.

In (P2P) marketplaces (e.g., Airbnb, Eatwith etc.), individuals (buyers) transact with other individuals (sellers) on an online platform maintained by a platform company (Rogers and Botsman 2010). In contrast to commercial transactions between a firm and its consumers, P2P services are transacted between peers (typically, strangers) resulting in a new form of buyer-seller relationship.[1] We examine the role of consumers' relationship orientation, i.e. communal vs. exchange orientation, in their responses to online reviews of P2P service providers. We first provide the motivation for this research.

From a managerial perspective, P2P marketplaces are anticipated to grow dramatically (Boesler 2013) with substantive economic implications (Sundararajan 2014). Price Waterhouse Cooper's projections (2015) show that five key sharing economy sectors—travel, car sharing, finance, staffing, music and video streaming—have the potential to increase global revenues from about $15 billion (2015) to around $335 billion by 2025. It is reasonable to expect therefore that P2P services will cannibalize from and threaten traditional commercial services. Some early evidence confirms that this is indeed the case. For example, Airbnb's entry in Texas hurt hotel room revenue by 8-10% (Zervas, Proserpio and Byers 2016).

Despite the growing economic significance of P2P service markets, there are few insights on the factors influencing consumers' behaviors in such markets. As Lamberton (2015) recently noted, "we can say little about the ways that collaborative consumption systems should be designed or the outcomes that might be expected from a collaborative system" (p. 694). Moreover, many P2P service providers are micro-entrepreneurs without access to professional

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[1]The term 'sharing economy' has also been used to describe other collaborative consumption models including P2P illegal sharing of movies among consumers with no commercial implications to the sharers (Hennig-Thurau, Henning, and Satler 2007) and access-based sharing systems of cars and bicycles by commercial firms (e.g., Zipcar) (Bardhi and Eckhardt 2012; Lamberton and Rose 2012), which are not the focus of this work.

marketing skills. Thus, we anticipate that this research's insights are useful to P2P service providers.

From a theoretical perspective, scholars have elaborated on the conceptual distinctions between collaborative consumption, which includes different types of sharing including P2P market places, and traditional buyer-seller relationships (Belk 2010). Distinct from traditional commercial services (Zeithaml, Parasuraman, and Berry 1985), P2P service transactions occur between strangers who are unlikely to transact again creating substantial uncertainty and information asymmetry (Resnick and Zeckhauser 2002). A key mechanism to reduce such information asymmetry between buyers and sellers, more generally (Hennig-Thurau et al. 2004; Sridhar and Srinivasan 2012), but specifically in the P2P services context, is online reviews of previous users (Fradkin et al. 2015). Thus, online reviews of previous users are intrinsic in a model of P2P consumer decision-making. As Varsha Rao, Head of Global Operations of Airbnb noted, "When we think about the sharing economy, it's about connecting people. We see (online) reviews as a key component of this. They are how guests and hosts share their views on each experience." This raises a pertinent question of how consumers respond to online reviews in the new P2P form of service transactions, and how these responses might differ from those in traditional commercial service transactions. To address these questions, we focus on the distinct nature of relationships between consumers and providers in P2P service transactions.

There is a social component intrinsic in P2P service relationships that is not present in traditional commercial service relationships. For example, Airbnb guests and hosts communicate about the availability of the room and details of the check-in; they may also socialize (e.g., the host may offer to show the guest around town). When consumers buy services from peer service providers, they are motivated by both social (i.e. communal) and economic (i.e. exchange)

considerations (Belk 2010; Habibi, Kim, and Laroche 2016). Distinct from traditional commercial service relationships that primarily exhibit exchange norms (Agarwal 2004), P2P service relationships exhibit both communal and exchange norms (Habibi et al. 2016). To understand how this hybrid, more communal nature of P2P (vs. commercial) service transactions norms influence consumer responses to online reviews, we turn to the literature on individuals' relationship orientation (Clark and Mills 1979, 2011).

Individuals prioritize different norms of the exchange of resources in relationships, which is captured by their relationship orientation (Clark and Mills 1979, 2011). People high on communal orientation (i.e. communally-oriented) feel responsible for others' welfare, are obliged to help others and expect others to be responsive to their needs and to demonstrate concern for their welfare. People high on exchange orientation (i.e. exchange-oriented) focus on their self-interest and are interested in reciprocity and equity in the relationship (Clark et al. 1987; Van Yperen and Buunk 1990).

Combining these differences in consumers' relationship orientation with the systematic distinction in relationship norms highlighted in the P2P services context, we develop hypotheses relating consumers' communal (vs. exchange) orientation to their responses to online reviews of P2P (vs. commercial) service providers. We hypothesize that, as online reviews reflect the extent to which P2P service providers have lived up to the communal (vs. exchange) norms and expectations of previous users, consumers with communal (vs. exchange) orientation will be more responsive to previous users' online reviews of P2P (vs. commercial) service providers.

Further, building on recent research (Habibi et al. 2016) that P2P service transactions vary along a continuum of relationship types, with P2P service providers offering communal relationships at one end (e.g., Couchsurfing) and those offering exchange relationships anchored

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at the other end (e.g., Uber), we propose that the effect of consumers' communal (vs. exchange) orientation on their responses to users' online reviews will depend on the type of the P2P service provider. We consider amateur (vs. professional) and warm (vs. competent) P2P service providers. Amateur P2P service providers dabble in unused inventory while professionals invest in service provision and rely on it as a main source of income (Li et al. 2015). The differences in investment and profit motivations of amateur and professional P2P service providers will shift the balance of relationship norms in P2P relationships toward communal (vs. exchange) norms for amateurs (professionals) leading consumers with communal (vs. exchange) orientation to be more responsive to online reviews of amateur (vs. professional) P2P providers.

P2P service providers often position themselves as warm (helpful, generous, concerned about others' welfare) or competent (skillful, effective, capable to enact desired outcomes, Cuddy, Fiske, and Glick 2007, 2008), each of which may elicit different responses from consumers (Aaker, Vohs, and Mogilner 2010). We propose that the positioning of P2P providers will shift the balance towards communal (vs. exchange) norms for warm (vs. competent) P2P service providers, so that consumers with communal (vs. exchange) orientation will be more responsive to online reviews of warm (vs. competent) P2P service providers. We further hypothesize that these effects occur because the match of consumers' communal (vs. exchange) orientation with the type of P2P service provider increases their processing fluency of the service offering.

We test our hypotheses in five lab experiments in two P2P service contexts (accommodations and meals), two populations (adults and young college students) and four dependent variables (purchase intention, service quality expectations, willingness to pay, usefulness of reviews, and service quality perceptions) that establish the robustness of the

findings. In a follow-up correlational analysis of P2P users' online reviews of hosts on a P2P accommodation platform, we also find a positive relationship between users' communal orientation and positivity of their own online reviews.

Our findings make several contributions to the literature. First, by showing that relationship orientation moderates consumers' responses to online reviews in the P2P services context, this research takes a first step toward a theory of P2P buyer-seller relationships. Second, we demonstrate the contingent effects (based on consumers' relationship orientation and type of service provider) of online reviews in facilitating the functioning of P2P service markets. In doing so, we extend research on online reviews beyond its current focus on purely commercial contexts. Third, we distinguish among types of P2P service providers (amateur vs. professional, warm vs. competent) and show that not all P2P service providers are created equal. Finally, our findings highlight the key role of relationship norms in the P2P services context and indicate that processing fluency of service offerings underlies this effect. As such, relationship norms emerges as an appropriate theoretical lens for studying P2P markets.

Next, we develop hypotheses relating consumers' relationship orientation to their responses to online reviews of P2P service providers. We then report five experimental studies and a follow-up correlational study that test the proposed hypotheses. We conclude with a discussion of the paper's contributions to marketing theory, managerial practice, and limitations and opportunities for further research.

HYPOTHESES

P2P service transactions occur (1) in the absence of brand information about the service provider which in traditional commercial transactions reduces consumer uncertainty, (2) between strangers unlikely (or with low probability) to transact again in the future, and (3) outside the

regulatory framework that typically oversees the quality of services in purely commercial settings. As a result, there is high information asymmetry and considerable economic risk for prospective buyers in P2P service markets.

Users' reviews are a crucial mechanism to reduce information asymmetry and build trust between buyers and sellers, especially in online marketplaces (Resnick and Zeckhauser 2002). The decision to stay in a stranger's apartment in a new city is less daunting when one can read testimonials from previous guests. Hence, in P2P service markets, online reviews are central to consumer decision making (Fradkin et al. 2015).

Given the unique characteristics of P2P markets, will consumers' responses to online reviews of P2P service providers diverge from their responses to online reviews in a traditional commercial service setting? We propose that because the hybrid communal-exchange norms characterizing P2P service transactions differ from those that govern traditional commercial transactions, consumers' relationship orientation will affect their responses to online reviews in P2P service settings, as we discuss next.

Relationship Norms in P2P Service Transactions

In interpersonal relationships, individuals are guided by *communal* norms (typically based on friendship) which prioritize the provision of "benefits in response to needs, or [demonstration of] a general concern for the other person," or by *exchange* norms which prioritize "receiving a comparable benefit in return or as repayment for a benefit received previously" (Clark and Mills 1993, p. 684).

Applying the notion of relationship norms to consumers' relationships with businesses, Agarwal (2004) noted that "relationships between strangers and people who interact for business purposes are typical exchange relationships" (p. 88). While commercial service providers do

offer some communal benefits (Agarwal 2004), in the absence of a friendship with the

commercial service provider (Agarwal 2004; Wan et al. 2011), relationships with commercial

service providers are characterized more by exchange norms than by communal norms.

In contrast, consumers' desire to share resources with peers in collaborative contexts is

driven by communal as well as exchange considerations (Belk 2010; Habibi et al. 2006; Hennig-

Thurau et al. 2007; Lamberton and Rose 2012). Indeed, when consumers purchase services from

peer providers, they pursue communal (i.e. social), in addition to exchange (i.e. economic) goals

(Belk 2010). For example, although Airbnb consumers seek value and expect clean, affordable

housing with privacy, many of them are interested in developing a personal relationship with the

hosts and they do not perceive the hosts as simply trying to make a profit (Chafkin 2016;

Kamenetz 2013). In the absence of prior transaction history or brand information, the communal

nature of P2P service providers (hosts) is salient to consumers. In sum, compared to commercial

service providers (e.g., hotels) who pursue economic goals and emphasize exchange norms, P2P

service providers (e.g., hosts) emphasize communal norms as much as or even more than they do

exchange norms.

Proposed Framework

Integrating the hybrid communal-exchange norms in P2P service relationships and the

crucial role of online reviews in facilitating P2P service transaction, we propose that consumers'

communal (vs. exchange) orientation will determine their responses to online reviews of P2P (vs.

commercial) service providers (H_1). Further, we propose that amateur (vs. professional) P2P

service providers and the positioning of P2P service providers as warm (vs. competent) can

affect the balance of the hybrid communal-exchange norms in the P2P service relationships. As a

result, 1) professional (vs. amateur) P2P service providers (H_2) and 2) warm (vs. competent) P2P

providers (H$_3$) will moderate the effects of consumers' communal (vs. exchange) orientation on responses to online reviews of P2P service providers. Finally, we propose that the effect of consumers' communal (vs. exchange) orientation on responses to online reviews of P2P service providers will be mediated by processing fluency of the service offering (H$_4$) (see Figure 1).

---- Insert Figure 1 here ----

Role of Consumers' Relationship Orientation

The extent to which consumers prioritize communal or exchange norms in relationships depends on their relationship orientation (Clark and Mills 1979; Clark et al. 1987). Communal-oriented individuals prioritize communal norms and others' interests, needs, and welfare in relationships (Clark et al. 1987) while exchange-oriented individuals prioritize exchange norms and their self-interest in the relationship. Thus, consumers with communal vs. exchange orientation respond differently to acts such as charging fees to resolve service problems (Agarwal 2004), displays of economic power (Scott, Mende, and Bolton 2013), and service failures of commercial service providers (Wan et al. 2011).

The positivity of online reviews reflects how well products or services meet consumers' expectations (Hennig-Thurau et al. 2004), and reviews significantly influence consumers' purchase intentions, evaluations, and perceptions of products (Gershoff and Mukherjee 2015). As P2P (vs. commercial) service relationships are characterized by communal (exchange) norms, a positive online review should signal that the P2P (vs. commercial) provider has met or exceeded the communal (vs. exchange) norms and expectations of previous users, whereas a negative online review should signal that the P2P (vs. commercial) provider has failed to do so. Because communal-oriented consumers (vs. exchange-oriented) uphold communal (vs. exchange) norms in relationships, communal-oriented (vs. exchange-oriented) consumers should be more

responsive (in terms of purchase intentions, perception of service quality, and assessment of usefulness of reviews) to online reviews (whether positive or negative) of P2P service providers (vs. commercial service providers). Thus, we offer:

> H_1: The higher the consumer's communal orientation (vs. exchange orientation), the higher their responsiveness to an online review of a P2P (vs. commercial) service provider.

Type of P2P Service Provider

In addition to the broad distinction of P2P service providers from commercial providers, there are key differences among P2P service providers, with some emphasizing social benefits of service transactions, and others emphasizing the economic benefits (Habibi et al. 2016). Such distinctions among P2P service providers may affect the balance of communal versus exchange norms in P2P service transactions. We propose two distinctions of P2P service providers that may move the balance of the hybrid communal-exchange norms.

Amateur versus Professional P2P Service Providers. P2P service providers differ in the extent of their expertise in service provision. Specifically, P2P service providers may be either amateurs or professionals. Amateurs dabble in service provision (e.g., renting out a room or making meals to earn some extra money) whereas professionals view P2P services as a key source of income, acquire skills, and invest in service provision (e.g., buying and renting many apartments), all of which should increase their expertise. This distinction is economically relevant as landlords operating more than one unit generated 39% of revenue in 12 major U.S. metros, and 29% of operators offered units for more than 360 days of the year (Clark 2016).

Studies in behavioral economics suggest that professionals perform better than amateurs (see Della Vigna 2009 for a review). In the P2P services context, amateurs have no professional training and have no expertise. In the Airbnb context, Li and colleagues (2015) found differences

in the performance of professional and amateur hosts: properties of professional (vs. amateur) hosts earn 16.9% more in daily revenue, have 15.5% higher occupancy rates, and are 13.6% less likely to exit the market.

All of this suggests that professional (vs. amateur) P2P service providers may run the service as a business with economic i.e. exchange (vs. social i.e. communal) goals. Given their different goals, amateur (vs. professional) P2P service providers will shift the balance of the communal-exchange norms toward communal (vs. exchange) norms. This greater focus of amateur P2P service providers on communal norms should appeal to communal-oriented consumers, making them more responsive to their online reviews. Likewise, the greater exchange focus of professional P2P service providers should appeal to exchange-oriented consumers, making them more responsive to their online reviews. Thus, we offer:

H_2: The higher the consumer's communal (vs. exchange) orientation, the higher their responsiveness to an online review of an amateur (vs. professional) P2P service provider.

Warm versus Competent P2P Service Providers. The second distinction among P2P service providers is their positioning on P2P platforms. People differentiate others on the basis of their apparent warmth and competence (Cuddy et al. 2007). Warmth judgments include perceptions of generosity, kindness, honesty, sincerity, helpfulness, trustworthiness, thoughtfulness. Competence judgments include perceptions of confidence, effectiveness, intelligence, capability, skillfulness, competitiveness, and assessments of other's capacity to enact intended tangible outcomes (e.g., Aaker 1997; Judd et al. 2005).

Consumers' judgments about firms' warmth and competence affect their consumption decisions (Aaker, Vohs, and Mogilner 2010). This is why service providers try to actively signal

their warmth or competence to affect business outcomes, including by displaying signals of economic success (Scott et al. 2013).

P2P service providers signal their warmth or competence in their self-descriptions on P2P platforms. To signal warmth, P2P service providers stress such characteristics as generosity and helpfulness. For example, one set of Airbnb hosts described themselves as, "We know what it feels like to be on the road and love helping guests feel comfortable and cozy in our apartment <…>. We like people." To signal competence, P2P service providers emphasize their expertise and ability. For instance, a different Airbnb host wrote, "If you're looking for someone that knows the city inside and out I'm your man. I've been around the world several times and my knowledge of [the city], its culture, cuisine and entertainment will be an asset to your stay."

We propose that the P2P service provider's emphasis on warmth or competence will change the balance of communal-exchange norms in P2P service transactions. Emphasizing warmth signals one's motivation to be other-focused and to behave in line with social norms (Cuddy et al. 2008), which should shift the hybrid relationship norms in P2P service transactions in the communal direction. On the other hand, emphasizing competence signals one's effective capacity to bring about one's intent (Cuddy et al. 2008), which should shift norms in P2P service transactions in the exchange direction.

As a result, we propose that communal-oriented (vs. exchange-oriented) consumers who value communal benefits (such as social ties) more and quid pro quo less will be more responsive to the online reviews of warm (vs. competent) P2P service providers. Thus, we offer:

> H_3: The higher the consumer's communal (vs. exchange) orientation, the higher their responsiveness to an online review of a warm (vs. competent) P2P service provider.

Role of Processing Fluency

To understand what underlies the effect of consumers' relationship orientation on their responses to P2P service providers, we turn to the literature on processing fluency (Reber, Schwarz, and Winkielman 2004). When people encounter information about a target that is consistent with their mental representations, they experience processing fluency, which creates a sense of "feeling right" about the target. For example, when consumers encounter abstract (concrete) information while contemplating a consumption event in the distant (near) future (Reber et al. 2004) or encounter a message that emphasizes the values (civic duty) that match their moral foundations (group loyalty) (Kidwell, Farmer and Hardesty 2013), they "feel right" about the message (Thompson and Hamilton 2006). This experience of processing fluency enhances consumers' perceived ease of comprehending the presented information, which leads them to view the information as more genuine and persuasive (Lee and Aaker 2004).

Extending this logic, when consumers with communal orientation encounter information about a (P2P) service provider who displays communal norms (say, a warm service provider), they should experience processing fluency and perceive the P2P service provider as being more consistent with their communal norm and view information about the provider's service offering as more genuine and persuasive. Hence, we expect that this feeling of processing fluency of the service offering will cause communal-oriented (vs. exchange-oriented) consumers to be more responsive to the online reviews of P2P service providers who display communal (exchange) norms. Thus, we offer:

> H_4: The effect of the consumer's communal (vs. exchange) orientation on responsiveness to a P2P service provider will be mediated by the processing fluency of the service offering.

Overview of Studies

We test our predictions in five experimental studies. In Study 1, we test how consumers' (measured) relationship orientation (communal vs. exchange) affects their responses to online

reviews of P2P and commercial service providers (H_1). In Study 2, we replicate the test of H_1 with a situational manipulation of relationship orientation (instead of an individual difference measure used in Study 1). In Studies 3 and 4, we examine consumers' responses to online reviews of amateur versus professional P2P service providers (H_2, Study 3) and warm versus competent P2P service providers (H_3, Study 4). In Study 5, we test the mediating role of processing fluency in the relationship between consumers' relationship orientation and response to online reviews of P2P service providers (H_4).

STUDY 1: P2P VS. COMMERCIAL SERVICE PROVIDERS

In Study 1, we examine the influence of consumers' communal and exchange orientation on their responses to online reviews of P2P and commercial service providers. Study 1 experimentally controls for the content of the review, manipulates the review's valence (positive vs. negative), service provider type (P2P vs. commercial) and measures consumers' relationship orientation with an established scale (Mills and Clark 1994). The dependent variable in Study 1 is purchase intention that has been the focus of past research (Gershoff and Mukherjee 2015), and a metric of keen interest for service providers.

We predict that, as consumers' communal (vs. exchange) orientation increases, they will be more responsive to online reviews of a P2P service provider (vs. a commercial service provider). Specifically, for P2P (vs. commercial) service provider, the higher the consumers' communal (vs. exchange) orientation, the higher (vs. lower) their purchase intention to buy the service, following a positive (vs. negative) online review of the service provider.

Method

The study used a $2 \times 2 \times 2$ design with service provider of accommodation (P2P vs. commercial) and online review valence (positive vs. negative) manipulated between subjects and

relationship orientation (communal vs. exchange) measured between subjects. Two hundred and fifty-two undergraduates at a public university in Southern United States (M_{age}=21; 46% female) and a private university in Northeastern United States filled out a survey in exchange for course credit. We controlled for the effects of location in the analysis.

Participants imagined that they were going on a trip to Toronto with their friends and that they were looking online for P2P accommodation. Participants read an online review from a previous user of an accommodation in downtown Toronto. Participants read that the accommodation was available either through Hotels.com (commercial service provider) or Airbnb.com (P2P service provider), and they read either a positive (5-star, very complimentary) or a negative (a 1-star, not at all complimentary) online review. Participants then indicated how likely they would be to book the room on a scale from 1 (not at all likely) to 7 (very likely).

At the end, participants filled out a scale of their relationship orientation (communal vs. exchange) (Mills and Clark 1994), which included items like, "I expect people I know to be responsive to my needs and feelings" to measure communal orientation and "When I give something to another person, I generally expect something in return" to measure exchange orientation, on a scale from 1="Strongly disagree" to 7="Strongly agree" (M=4.57, SD=.56).

Results

First, following extant work (e.g., Scott et al. 2013), we recoded participants' responses on the relationship orientation scale such that high (vs. low) response values indicated communal (vs. exchange) orientation. We then regressed booking likelihood on mean-centered service provider (.5 for P2P vs. -.5 for commercial), review valence (.5 for positive vs. -.5 for negative), relationship orientation (mean-centered around 0) and all interactions. We included location (.5 for Northeastern US vs. -.5 for Southern US) as a control variable.

The results indicated that controlling for location (b=.10, t=.71, p=.48), the coefficients of online review valence (b=3.01, t=20.93, p<.001) and the online review valence × relationship orientation interaction were statistically significant (b=.80, t=3.05, p=.003). The likelihood of booking an accommodation was higher following a positive online review (M=5.41) than a negative online review (M=2.40), and communal-oriented consumers were more responsive to the valence of the online review than exchange-oriented consumers ($b_{review\ valence}$=3.46, t=16.98, p<.001 at 1 SD above mean orientation score vs. $b_{review\ valence}$=2.56, t=12.20, p<.001 at 1 SD below mean orientation score). Importantly, supporting H$_2$, there was a significant three-way service provider × review valence × relationship orientation interaction (b=1.22, t=2.32, p=.02).

To analyze this interaction, we assessed consumers' response to online reviews of P2P vs. commercial service providers among communal-oriented (1SD above mean) and exchange-oriented (1 SD below mean) consumers. The results revealed that whereas communal-oriented consumers were more responsive to an online review of a P2P service provider ($b_{review\ valence}$=3.85, t=13.60, p<.001) than to that of a commercial service provider ($b_{review\ valence}$=3.07, t=10.51, p<.001), exchange-oriented consumers were more responsive to an online review of a commercial service provider ($b_{review\ valence}$=2.86, t=9.45, p<.001) than to one of a P2P service provider ($b_{review\ valence}$=2.23, t=7.73, p<.001). For P2P service providers, booking intentions increased with consumers' communal (vs. exchange) orientation following a positive online review ($b_{communal-exchange\ orientation}$=.56, t=2.71, p=.009) and decreased with consumers' communal (vs. exchange) orientation following a negative online review ($b_{communal-exchange\ orientation}$=-.86, t=3.01, p=.004). The other coefficients were not statistically significant ($|b|$s<.14, $|t|$s<1.02, p's>.31).

Discussion

The results of Study 1 provide evidence of the effect of consumers' relationship orientation (communal vs. exchange) on their responsiveness to online reviews of P2P (vs. commercial) service providers. Study 1 revealed that online reviews of P2P service providers are more effective for communal-oriented consumers. But the study used a measure of inherent relationship orientation, which raises a question of whether the findings would generalize when relationship orientation (communal vs. exchange) is induced, which we address in Study 2.

STUDY 2: MANIPULATED RELATIONSHIP ORIENTATION

The goal of Study 2 was to verify the effect of relationship orientation (communal vs. exchange) on consumers' responses to online reviews of P2P service providers using an experimental manipulation (instead of an individual difference measure used in Study 1). Prior research shows that relationship orientation can be effectively induced by having participants imagine a communal or exchange transaction with another person (Agarwal 2004; Clark and Mills 1993). Thus, we manipulated relationship orientation, keeping constant across conditions, the P2P service provider and a positive online review. To extend the generalizability and managerial relevance of the results, we used a different dependent variable in Study 2, the usefulness of the online review, a key driver of purchase intention on online platforms (Ghose and Ipeirotis 2011).

Method

The study was a one-factor design with relationship orientation (communal vs. exchange) manipulated between-subjects. One hundred and sixty-nine undergraduates in northeastern United States (M_{age}=20; 38% female) completed the study in exchange for course credit. To manipulate relationship orientation, we had participants read a scenario describing their relationship with a hypothetical person attending the same university. The scenario (Agarwal and

Law 2005) described a communal or exchange interaction with a different individual. After the scenario, participants were directed to a different survey, in which they read that they were contemplating going to Miami Beach for Spring break and they were looking for accommodation. As in Study 1, they read that they were considering staying in an Airbnb apartment and they read a guest's positive online review of the apartment. After reading the review, participants evaluated its usefulness using a six item measure (how useful, helpful, informative the review was, to what extent they would trust, believe and use the review when deciding, 1 = "not at all" to 7 = "very much," α=.93, M=4.88, SD=1.19).

Results and Discussion

We conducted a one-way ANOVA on review usefulness with relationship orientation as a fixed factor. The results revealed a significant effect of relationship orientation ($F(1,167)$=3.78, p = .053). Consistent with Study 1's results, inducing a communal orientation led consumers to evaluate the online review of the P2P service provider as being more useful (M=5.06) than when inducing an exchange orientation (M=4.71).

Study 2 identifies a key role of relationship orientation in consumers' responses to online reviews of P2P service providers with an orthogonal manipulation (vs. a measure of individual difference in relationship orientation) and a dependent variable of review usefulness (vs. purchase intentions). It thereby enhanced the theoretical and practical relevance of the role of relationship orientation in consumers' responses to online reviews of P2P (vs. commercial) service providers. Studies 3 and 4 go further by comparing consumers' responses to different types of P2P service providers. In Study 3, we examine how consumers' relationship orientation (communal vs. exchange) influences their responses to online reviews of amateur vs. professional P2P service providers (H_3).

STUDY 3: AMATEUR VS. PROFESSIONAL P2P SERVICE PROVIDERS

Method

In Study 3, we use a $2 \times 2 \times 2$ design with P2P service provider (professional vs. amateur) and online review valence (positive vs. negative) manipulated between subjects and relationship orientation (communal vs. exchange) measured between subjects. The study used a P2P dining service (instead of an accommodation service used in Studies 1-2) and consumers' service quality expectations as the response variable to extend the generalizability of the findings.

Two hundred and four undergraduates in Southern United States (M_{age}=21; 58% female) completed the study for course credit. Participants read that they were planning to dine out and were considering dinner offered by a peer on a P2P dining platform Eatwith.com, which lists dining options offered by cooks at their homes.

Participants read that they were considering joining a "Contemporary American Tasting Menu" option offered by Alex. They read the description of the dining option, which was identical across conditions, except that Alex was described as a "self-taught home cook" (amateur condition) or a "professionally trained chef" (professional condition). Participants also read either a positive or a negative online user review (a 5-star, complimentary review in the positive condition vs. a 1-star, uncomplimentary review in the negative condition). Participants then indicated their service quality expectations, i.e. how *gourmet* they thought the dinner would be on a scale from 1 = "Not at all" to 7 = "Very much" and filled out the communal-exchange orientation scale (M=4.63, SD=.58).

Results

We first recoded participants' responses to the relationship orientation scale such that high (low) response values indicated communal (exchange) orientation. We then regressed participants' service quality expectations on mean-centered P2P provider (.5 for amateur vs. -.5 for professional providers), online review valence (.5 for positive vs. -.5 for negative), consumers' relationship orientation (mean-centered around 0) and all related interactions.

The results indicated that online review valence (b=1.25, t=7.64, p<.001) had an effect on consumers' responses; service quality expectations were higher following a positive online review (M=5.24) than a negative online review (M=3.99). Supporting H_2, there was a significant three-way interaction of P2P service provider (amateur vs. professional), online review valence, and relationship orientation) (b=1.11, t=1.93, p=.055).

To further analyze this interaction, we examined consumers' responses to online reviews of amateur vs. professional P2P service providers among communal-oriented (1 SD above mean) and exchange-oriented (1 SD below mean) consumers. The results indicated that communal-oriented consumers had higher service quality expectations following an online review of an amateur (vs. professional) P2P service provider ($b_{\text{review valence}}$=1.58, t=4.50, p<.001 vs. $b_{\text{review valence}}$=.75, t=2.51, p=.014, respectively) whereas exchange-oriented consumers had higher service quality expectations following an online review of a professional (vs. amateur) P2P service provider ($b_{\text{review valence}}$=1.56, t=5.29, p<.001 vs. $b_{\text{review valence}}$=1.1, t=2.95, p=.004, respectively). The remaining coefficients were not significant ($|b|$s<.41, $|t|$s<1.41, p's>.15).

Discussion

The findings of Study 3 which extend the findings from Studies 1-2 indicate that amateur (vs. professional) P2P service providers are better suited to meet the needs of communal-oriented (vs. exchange-oriented) consumers. Thus, to be more effective, amateur (professional) P2P

service providers may wish to appeal to communal-oriented (exchange-oriented) consumers. In Study 4, we examine consumers' responses to online reviews of warm vs. competent P2P service providers (H_4).

STUDY 4: WARM VS. COMPETENT P2P SERVICE PROVIDERS

In Study 4, we test whether P2P service providers can emphasize their warmth (a communal characteristic) or competence (an exchange characteristic) to more effectively appeal to communal-oriented (vs. exchange-oriented) consumers. Furthermore, unlike the prices of commercial services which are non-negotiable, the prices of P2P services are often negotiated through online communications between the buyer and the service provider (e.g., Eatwith.com patrons are requested to provide a donation to compensate their hosts for services rendered). Thus, a key pre-purchase decision for P2P consumers is what price to pay for the service. Hence, in Study 4, the dependent variable is the consumer's willingness to pay for the P2P service.

Method

In Study 4, we used a 2 × 2 design with the P2P service provider's self-framing (warm vs. competent) manipulated between subjects and consumers' relationship orientation measured between subjects. As in Study 2, in Study 4, we use only positive online reviews across the four conditions. The dependent measure was willingness to pay (in USD) for the service. One hundred and forty seven undergraduates in Northeastern United States (M_{age}=20; 50% female) were recruited in exchange for course credit.

Participants read that they were planning to dine out and were considering a dining option on a P2P dining platform Eatwith.com. Participants read the description of a "Contemporary American Tasting Menu" dinner option offered by amateur cook Alex and they saw a positive (5-star very complimentary) customer review of the option. The description was manipulated to

signal the host's competence or warmth. To manipulate competence (warmth) of the provider, we described Alex as having "learned that the most delicious food is made when creativity meets experience (an open heart)," that their "experience (sharing with others) makes [them] a better cook," and that nothing makes them happier than "perfecting (sharing) [their] creations." Following Aaker, Vohs and Mogilner (2010), the description showed a website link to Alex's recipes, which contained a ".com" (".org") in the domain name in the competence (warmth) condition. After reading the description and the review, participants indicated how much they would be willing to pay for the dinner (*M*=$48.46, *SD*=$43.81). At the end of the survey, participants filled out the relationship orientation scale (*M*=4.63, *SD*=.55).

Results

Again, we recoded participants' responses to the relationship orientation scale such that high (vs. low) response values indicated communal (vs. exchange) orientation. We then regressed willingness to pay on mean-centered P2P service providing framing (.5 for warm vs. -.5 for competent), relationship orientation (mean-centered around 0) and their interaction. The results revealed non-significant coefficients of P2P service provider framing (*b*=-.18, *t*=-.02, *p*=.98) and relationship orientation (*b*=5.75, *t*=.87, *p*=.39). But, supporting H_3, the results indicated a significant positive interaction of consumers' relationship orientation with the P2P service provider's positioning as warm vs. competent (*b*=29.97, *t*=2.27, *p*=.025).

We conducted a Johnson-Newman analysis in SPSS (Hayes 2013) to uncover the regions of consumers' communal vs. exchange orientation that yielded higher (vs. lower) willingness to pay for a dinner provided by a warm (vs. competent) host. As shown in Figure 2, the results revealed a *lower* willingness to pay for a dinner provided by a warm (vs. competent) peer host among exchange-oriented consumers (who scored 3.68 or lower on the 1-to-7 communal vs.

exchange orientation scale) (b_{warm}=-28.52, t=-1.98, p=.05), but a *higher* willingness to pay for a dinner provided by a warm (vs. competent) peer host among communal-oriented consumers (who scored 5.59 or higher on the scale) (b_{warm}=28.73, t=1.98, p=.05).

--- Insert Figure 2 about here ---

Discussion

The results of Study 4 demonstrated that amateur peer providers may frame their description on P2P service platforms to appeal to communal-oriented (vs. exchange-oriented) consumers. These results generalized our findings beyond purchase intentions, usefulness of review and service quality expectations, examined in Studies 1-3, to willingness to pay for the service. Together, Studies 1-4 document the role of consumers' communal vs. exchange orientation in their responses to online reviews of P2P (vs. commercial, amateur vs. professional, warm vs. competent) service providers. In Study 5, we empirically examine the theoretical process behind the match between consumers' relationship orientation and their responses to online reviews of P2P service providers.

STUDY 5: ROLE OF PROCESSING FLUENCY

In Study 5, we examine the role of consumers' processing fluency with the service offering in explaining the effect of their relationship orientation on their responses to P2P service providers. In Study 5, we used the basic setup of Study 4 using warm vs. competent P2P providers of a dining service, and measured consumers' relationship orientation. We used a measure of service quality perceptions as the dependent variable.

Method

In Study 5, we used a 2 × 2 design with P2P service provider frame (warm vs. competent) manipulated between subjects and relationship orientation (communal vs. exchange) measured

between subjects. As in Studies 2 and 4, we held the positive valence of the online review constant across conditions. Three hundred and six individuals from the United States (M_{age}=34; 50% female) on Amazon Mechanical Turk took part in the study in exchange for 80 cents.

Participants read the same scenario, description and positive online review of a warm or a competent P2P dinner host on Eatwith.com as in Study 4, but there were two differences. First, instead of indicating their willingness to pay for the dinner, participants provided their service quality perceptions. We used a multiple item measure of service quality perceptions (including whether the service quality, the host's value proposition and the host's service offering would meet their expectations and the likelihood with which they would have a good time, identify with the host, get along with the host, and have a connection with the host during dinner; from 1= "not at all" to 7="very much"; α=.90, M=4.61, SD=.55). Second, participants completed a scale of the processing fluency of the service offering (the extent to which the offering description was clear, compelling, credible, easy to follow, easy to relate to, plausible, convincing, attention-grabbing, felt right and flowed; α=.94, M=5.47, SD=1.01; Kidwell et al. 2013; Lee and Labroo 2004). At the end of the survey, participants completed the relationship orientation (communal vs. exchange) scale (M=4.58, SD=.57).

Results

First, we regressed service quality perceptions on P2P service provider framing (.5 for warm, -.5 for competent), relationship orientation (mean-centered around zero), and their interaction. The results revealed non-significant coefficients of service provider framing (b=-.03, t=-.25, p=.80) and relationship orientation (b=.11, t=1.16, p=.25). Consistent with H4 and the results of Study 4 , the coefficient of the service provider framing × relationship orientation interaction was significant (b=.51, t=2.62, p=.009). Applying the Johnson-Newman technique

indicated that the effect of warm (vs. competent) P2P provider framing was *positive* and significant among communal-oriented consumers (who scored 5.36 or higher on the 1-to-7 relationship orientation scale; b_{warm}=-.2965, t=-1.97, p=.05), but *negative* and significant among exchange-oriented consumers (who scored 4.06 or lower; b_{warm}=.3668, t=1.97, p=.05).

Next, we tested the role of processing fluency in explaining these results. First, a regression analysis revealed that service provider framing as warm (vs. competent) (b=-.001, t=-.01, p=.99) and relationship orientation (b=.14, t=1.37, p=.17) alone, did not predict processing fluency, but that the framing × relationship orientation interaction did (b=.47, t=2.32, p=.021). Whereas warm (vs. competent) framing of the P2P service provider increased processing fluency among communal-oriented consumers (who scored 5.50 or higher on the scale; b=.4262, t=1.97, p=.05), it significantly reduced processing fluency among exchange-oriented consumers (who scored 3.69 or lower; b=-.4196, t=-1.97, p=.05). Processing fluency, alone, predicted service quality perceptions (b=.70, t=18.0, p<.001), and when it was included as a predictor in the original model with provider framing, relationship orientation and the framing × relationship orientation interaction, processing fluency predicted service quality perceptions (b=.68, t=17.32, p<.001), but the provider framing × relationship orientation interaction did not (b=.19, t=1.38, p=.17). A mediation analysis (Model 8, moderated mediation) within the Process command in SPSS (Hayes 2013; with 10,000 bootstrap samples and 95% bias corrected confidence intervals) revealed a significant indirect effect of the provider framing × relationship orientation interaction on service quality perceptions through processing fluency (a×b=.3187, 95% CI=[.0007, .6203]).

Discussion

In Study 5, we replicated the findings of Study 4 about the moderating effect of consumers' relationship orientation on their responsiveness to online reviews of warm vs.

competent P2P service providers. Further, the results confirmed that the effect of consumers'

relationship orientation on their responsiveness to online reviews of P2P service providers is

mediated by the processing fluency of the provider's service offering.

FOLLOW-UP STUDY: RELATIONSHIP ORIENTATION AND CONSUMERS' OWN ONLINE

REVIEWS

In Studies 1-5, we established a link between consumers' relationship orientation and

their pre-purchase responses to online reviews of P2P service providers. In a follow-up study, we

explore whether consumers' relationship orientation will affect their own post-purchase online

reviews of P2P service providers, since continued functioning of peer-to-peer service markets are

ensured when consumers are satisfied with the P2P service provision.

To the extent that online reviews reflect the ability of a service to address consumers' (in

this case, communal) needs, we anticipate that the higher the users' communal orientation, the

more positive their own online reviews of P2P service providers. Complementing the

experimental approaches in Studies 1-5, we use a correlational analysis of archival data of users'

online reviews from a leading P2P accommodation website to relate users' (i.e. guests)

communal orientation to their online reviews of the P2P service providers (i.e. hosts).

Method

We scraped users' online reviews of all two-bedroom apartments in two cities, Miami (n

= 249, users = 10,585) and New York (n = 225, users = 9,175) in February 2016. For these

apartment listings, we collected data on users' online reviews of their experiences and online

profile information and hosts' online reviews of these users. We used Linguistic Inquiry and

Word Count (LIWC) software 2015 version (Pennebaker et al. 2015) to develop measures of

variables from the online review text.

Online Reviews of P2P Service Provider. People who feel good (bad) about something (i.e. the apartment being reviewed) are more likely to see the world in a positive (negative) way. Thus, we measured users' online evaluations of the P2P service providers following their service experience using net positivity – i.e. positive emotions (dictionary of 620 words, e.g., love, nice, sweet) less negative emotions (dictionary of 744 words, e.g., hurt, ugly, nasty) – in the online review text (*M*=9.399, *SD*=8.399).[2]

Communal Orientation. We measured users' communal orientation using an index of the need for affiliation in the LIWC dictionary which has 248 words (e.g., ally, friend, social, (*M*=3.991, *SD*=.4.082). People with a high need for affiliation scan their environments for friends, close relationships, and trustworthy allies (Pennebaker et al. 2015). We note that in this follow-up study, we do not consider exchange orientation, as we did not find an appropriate measure for it in the LIWC dictionary.

Control Variables. We consider the number of words in the online review text and each user's general positive tendency (obtained from evaluations of the user by all hosts with whom the user has stayed in the past) as control variables in the model. The correlations among key variables (not reported in the interest of brevity) are reasonable (-.000 to .124), and the highest correlation is between communal orientation and positivity of online reviews at .124 (*p*<.01).

Results

As online reviews of users are nested within apartments (i.e. an apartment has many reviews), they are not independent within apartments. Thus, we estimate the effects of users' communal orientation on their online reviews of P2P service providers using a random effects hierarchical linear model, where users (the first level) are nested within apartments (the second

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[2] We get similar results (not reported in the paper due to space considerations, but available upon request) using only positive emotions (i.e. excluding negative emotions) of the online review as the dependent variable.

level). These models also include three control variables: the number of words in the review, the general positive tendency of the user, and the city (Miami/New York).

In Table 1, we report the results of alternative models. In Column 1 of Table 1, we report the results of a baseline model using ordinary least squares regression. Overall, the model fits the data well ($F(4, 19755)=766.14$, $p< .01$, adjusted R-squared=0.134). As expected, users' communal orientation is positively related to the positivity of their online reviews of the P2P service provider ($b=245$, $p<.01$). The number of words ($b=-.050$, $p<.01$), city ($b=-.179$, $p<.10$), and the general positive tendency of users (b=.017, $p<.01$) also affect the positivity of their online reviews.

---- Insert Table 1 here ----

In Column 2 of Table 1, we present the results of a baseline model with users' online reviews (Level 1) nested within apartments (Level 2) with the three control variables. Overall, the model fits the data well (Wald Chi-square (3)=2615.03, $p<.01$). In Column 3 of Table 1, we present the results of a model with users' online reviews (Level 1) nested within apartments (Level 2) with communal orientation and the three control variables (Wald Chi-square (5)=3323.73, $p<.01$). As expected, users' communal orientation is positively related ($b=.170$, $p<.01$) to the positivity of their online reviews of the P2P service provider. Further, this model fits the data better than one with only control variables (Chi-square (2)=305, $p<.01$).

Robustness Analysis

Although we control for the general positive tendency of users in the models above, some may argue that those users' communal orientation was situationally induced by a more positive service experience (i.e. there is reverse causation). To preclude this reverse causality explanation, we need a measure of users' communal orientation obtained outside the P2P online review

process. One such measure is the number of Facebook friends reported on the user's online profile on the P2P platform (n = 8,833, not all users report this information). We report the results of this model in Column 4 of Table 1. Again, users' communal orientation measured by the number of their Facebook friends is positively related (b=.001, p<.01) to the positivity of their online reviews of the P2P service provider.

We also examine the robustness of the results to another alternative measure of communal orientation obtained from LIWC i.e. social processes, the extent to which the individual references other individuals (dictionary of 756 words, e.g., "mate," "they") (M=7.943, SD=6.021). People high on social processes are more connected with others. We report the results using this alternative measure in Column 5 of Table 1. Again, users' communal orientation is positively (b=.130, p<.01) related to the positivity of their online reviews of the P2P service provider. Overall, we find robust evidence for the positive relationship between users' communal orientation and positivity of their own online reviews.

Discussion

The findings of the follow-up study, based on correlational analysis of archival data of consumers' online reviews after their service experience, indicate that consumers' communal orientation (measured in three different ways) is positively related to the positivity of their own online reviews of the P2P service provider. The findings from this follow-up study combined with the experimental evidence in Studies 1-5 reiterate the key role of relationship norms both in the generation of and responses to online reviews in the P2P services context.

GENERAL DISCUSSION

The P2P services sector relies on the mobilization of resources (cars, apartments, and other services) by non-commercial actors to be shared with peer consumers. While the sharing

occurs under the aegis of the P2P platform, both the service provider and consumers are strangers with the service provider having no branding to reassure consumers about the quality of their service offerings.

Applying relationship norms literature to P2P service markets, we demonstrate that consumers' relationship orientation moderates their responses to online reviews of P2P service providers (as well as their own post-purchase evaluations of P2P service providers). Specifically, the effects of consumers' communal (vs. exchange) orientation are systematically different across P2P (vs. commercial) service providers, amateur (vs. professional) P2P service providers, and warm (vs. competent) P2P service providers. Furthermore, the effect of consumers' communal orientation on their responsiveness to P2P service providers is mediated by their processing fluency of the service offering.

Theoretical Contributions

Our findings which integrate theoretical developments in P2P service markets, online reviews and relationship norms, contribute to multiple streams of literature.

P2P service markets. Given the unique characteristics of P2P service relationships, it is not clear whether extant findings in buyer-seller relationships (e.g., Doney and Cannon 1977; Dwyer, Schurr, and Oh 1987) and service provision (e.g., Zeithaml, Parasuraman, and Berry 1985) developed in the commercial service provision context (e.g., hotels and restaurants chains) would apply to the case of P2P service provision.

We take a step forward in developing a theory of P2P buyer-seller relationships in the services context. This research's findings indicate that not all consumers respond identically to online reviews, a crucial input to consumer decision making in the P2P context. Specifically, we identify relationship norms as a key theoretical building block for consumer decision making in

P2P buyer-seller service relationships. In doing so, we address Lamberton's (2015) call for research on the factors influencing the functioning of collaborative sharing systems.

Our findings on the role of relationship norms in consumers' responses to online reviews of different P2P providers validate Habibi et al.'s (2016) conceptual framework of hybrid communal-exchange norms in P2P sharing. Further research on whether relationship norms moderate other consumer behaviors (e.g., loyalty, word-of-mouth) in the P2P context will be important in building an integrated theory of P2P buyer-seller relationship.

Online reviews in P2P service markets. Whereas factors driving online reviews and their consequences have been extensively researched, online reviews in the P2P services context is only now getting some attention (Fradkin et al. 2015). In contrast to online reviews of commercial services, P2P service reviews are different since they tend to be more personal as they rate an experience with another private individual rather than a business. Moreover, to the best of our knowledge, past research on online reviews has not examined the role of consumer and provider heterogeneity in responses to online reviews.

Our findings indicate that consumers' relationship orientation systematically determines their responses to (positive and negative) online reviews of P2P service providers, with communal-oriented consumers being more responsive to online reviews (positive or negative) of P2P service providers in general, and to certain types of P2P service providers, in particular. Further research on whether such consumer and service provider heterogeneity also exists in responses to online reviews in traditional commercial contexts (e.g., hotels) would be useful.

Amateur and professional service providers. Some markets are characterized by sellers who may be either amateurs or professionals (e.g., E-bay and Amazon market places, sports memorabilia markets). To the best of our knowledge, past research on buyer-seller relationships

has not examined whether consumers respond differently to amateur vs. professional sellers. P2P service provision offers a unique opportunity to examine this question. Our findings indicate a moderating effect of consumers' relationship orientation on responses to amateur (vs. professional) P2P service providers. Further research on other differences in consumers' responses to amateur versus professional P2P service providers, based on other consumer and situational characteristics would be useful.

Relationship norms in hybrid communal-exchange settings. Research on relationship norms in the marketing literature (Agarwal 2004; Agarwal and Law 2005; Wan et al. 2011) has focused on traditional commercial contexts where the role of the buyer (typically a commercial firm) and seller (a consumer) and the norms for the relationships are generally well-established. In the P2P services context, where consumers are peers transacting with peer sellers, there is greater fluidity in the roles of buyers and sellers, resulting in hybrid communal-exchange norms (Habibi et al. 2016). We extend relationship norms theory to the hybrid P2P services context where both communal and exchange norms coexist and show that the effect of consumers' relationship orientation in this context depends on the balance of communal and exchange norms cultivated by the provider.

Responses to warm and competent stereotypes. Recent work (Aaker et al. 2010) suggests that consumers respond differently to warm vs. competent stereotypes of firms. Specifically, consumers are less willing to buy a product made by a warm seller (i.e. nonprofit organization) than a competent seller (i.e. for-profit firm) because of their perception that the warm, non-profit organization lacks competence. However, when perceived competence of a warm seller is increased, discrepancies in willingness to buy disappear. In a novel contrast to their findings, we find that some consumers, i.e. communal-oriented consumers, were actually willing to pay more for service from a warm P2P service provider. This occurs because of the processing fluency of a

warm provider's offering for communal-oriented consumers, thereby suggesting that accounting for consumers' relationship orientation in their responses to warm (vs. competent) positioned services is necessary. Further research on responses to warm providers in other buyer-seller contexts (e.g., experiential vs. functional goods, hedonic vs. utilitarian goods) would be useful.

Managerial Relevance and Implications

Our findings provide some actionable guidance to P2P service providers and P2P service platform companies, traditional commercial service providers, and P2P industry analysts.

P2P service providers and P2P platform firms. Across the different studies, this research's findings highlight the importance of accounting for consumers' relationship orientation when assessing the responses to online reviews on P2P service platforms. Specifically, consumers' communal (vs. exchange) orientation increases responsiveness (in terms of purchase intentions, willingness to pay, perceptions of service quality and usefulness of reviews) to (positive and negative) online reviews of P2P (vs. commercial) service providers, amateur (vs. professional) P2P service providers, and warm (vs. competent) P2P providers.

For P2P service providers, these findings suggest that their offerings are likely to be more appealing to communal-oriented consumers, and not to all consumers. Provided that certain observable characteristics (e.g., national culture) may be linked to consumers' communal orientation (Van Yperen and Buunk 1990), P2P service providers and platform owners may be able to identify promising consumer segments to increase the effectiveness of their marketing efforts. Furthermore, as Study 2 shows, similar responses are obtained when communal orientation is induced through situational cues, which indicates that, to make their offerings more appealing, P2P service providers and P2P platform firms can deliberately highlight the

communal (rather than the exchange nature, i.e. value of the accommodation) nature of their service offerings.

The success and viability of the P2P services economy is contingent on increasing amateur service providers' participation and enabling their continued functioning. Yet, Li et al. (2015) find that amateur (vs. professional) providers on P2P service platforms do not perform well or survive long. The findings of Study 3 suggest different segmentation strategies for professional vs. amateur service providers: amateur P2P service providers can appeal more effectively to communal-oriented consumers, and in doing so, can increase the efficiency of their P2P service operations. P2P service platform owners can use this finding to promote the use of communal-oriented messaging for amateur service providers to ensure their continued presence on the platform, crucial for the success of their platform.

Similarly, the findings of Study 4 on responses to warm (competent) peer providers suggest that P2P service providers should position themselves (and build capabilities to match) as either warm or competent to match the communal (vs. exchange) orientation of consumers that they wish to attract.

The findings of Study 6 indicate that consumers' communal orientation also affects their post-purchase evaluations of the P2P service provider. This suggests that P2P service providers will benefit from highlighting the communal nature of the P2P service experience, which can induce communal norms and enhance the quality of the service experience for communal-oriented consumers creating a win-win situation for both service providers and consumers.

Traditional commercial service providers. The research's findings also generate some implications for traditional commercial service providers (e.g., hotels and restaurants) who are threatened by the growth of the sharing economy. Should they become more like the P2P service

platforms in terms of their offerings (more communal) or build on their core strengths (i.e. standardization, efficiency)? The findings of Study 1 suggest that traditional service firms would be more effective by building on their core strengths, which will appeal to exchange-oriented consumers, their traditional constituency. If they want to tap into the growing P2P services sector, they would probably benefit by setting up a P2P services platform, as a spinoff company, independent of their current commercial service operations.

Industry analysts. Finally, there is considerable hype about P2P markets with some (Price Waterhouse Coopers 2015) suggesting that these markets may reach $ 335 billion in 2025, presumably with very disruptive effects for traditional service firms across many industries including hotels and restaurants. Our findings suggest that P2P service markets are likely to be more appealing to communal-oriented consumers, and not to all consumers. However, as Study 2 suggests, the appeal of P2P service offerings can be enhanced by stressing the communal aspects of the hybrid communal-exchange continuum of P2P service markets suggesting that the size of the P2P services sector, will be determined, in part, by firms' strategic actions in the P2P space. While, there is no data on the general incidence of communal orientation in individuals (i.e. what proportion of individuals are communally-oriented), research using our findings on the key role of relationship norms can be useful in estimating the size of the P2P services sector in the future.

Limitations and Opportunities for Further Research

In this first study of responses to online reviews in the P2P services context, we focus on relationship norms and use laboratory experiments and a follow-up correlational study for empirical testing. Also, given the P2P consumer perspective that we adopted in this research, we do not examine whether and how different P2P service providers vary in their selling strategies. Further research using a P2P seller perspective and field experiments, including in longitudinal

settings with other outcomes (e.g., revenues, satisfaction, willingness to recommend, loyalty), would be useful to generate additional insights on P2P seller strategies. Further, for the empirical testing, we focused on P2P services with hybrid communal-exchange characteristics (e.g., accommodations, meals). One P2P service sector that has been growing dramatically is transportation (e.g., Uber, Lyft), which is characterized more by exchange than by communal norms. Research on the role of consumer characteristics in such predominantly exchange-based P2P services context would be both timely and useful.

To conclude, this research identifies a key role of consumers' relationship orientation on their pre-purchase and post-purchase responses to online reviews in the P2P services context. As the size of the P2P services economy is expected to grow dramatically in the future, we hope that this study will inspire future work in the area.

TABLE 1

FOLLOW-UP STUDY: USERS' COMMUNAL ORIENTATION AND ONLINE REVIEWS OF P2P SERVICE PROVIDER

Variables	Column 1	Column 2Column 2	Column 3	Column 4	Column 5
Communal orientation	.244 (.013)***	-	.238 (.013)***	.001 (.000)***	.187 (.009)***
Number of words in online review	-.050 (.001)***	-.050 (.001)***	-.049 (.001)***	-.050 (.001)***	-.050 (.001)***
General positive tendency of user	.017 (.002)***	.016 (.002)***	.017 (.002)***	.011 (.002)***	.017 (.002)***
City of apartment	-.179 (.106)*	-.325 (.154)**	-.174 (.148)**	-.619 (.189)***	-.257 (.145)**
Intercept	10.269 (.128)***	11.395 (.138)	10.356 (.146)***	14.073 (.278)***	9.870 (.151)***
Model fit statistics	$F(4, 19755) =$ 766.14*** Adjusted R-square= .134	Wald Chi-square (3) = 2615.03***	Wald Chi-square (4) = 2994.68***	Wald Chi-square (5) = 1552.56***	Wald Chi-square (4) = 3350.19***
Log-likelihood	-	-67,764	-67,559	-29, 941	-67,447
Random effects parameters	-	.737 (.135)***	.830 (.146)***	.878 (.228)***	.977 (.159)***
Log-likelihood ratio test vs. linear regression	-	108.71***	85.63***	29.85***	76.81***
Sample	19,760	19,760 consumers nested in 474 apartments	19,760 consumers nested in 474 apartments	8,833 consumers nested in 463 apartments	19,760 consumers nested in 474 apartments
Model estimation approach	Ordinary least squares regression	Hierarchical linear regression	Hierarchical linear regression	Hierarchical linear regression	Hierarchical linear regression

*** denotes significance at $p < .01$, ** at $p < .05$ and * at $p < .10$.

FIGURE 1:

RELATIONSHIP ORIENTATION AND CONSUMERS' RESPONSES TO ONLINE REVIEWS IN P2P SERVICE MARKETS

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┌─────────────────┐          ┌ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┐        ┌──────────────────────┐
│  Communal vs.   │          │ Processing Fluency of     │       │ Consumer Attitudes and│
│   Exchange      │──────┐   │   Offering               │──────▶│ Behavioral Intentions │
│  Orientation    │      │   │  (H₄) (Study 5)          │        │                      │
└─────────────────┘      │   └ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┘        └──────────────────────┘
                         │            ▲
┌─────────────────┐      │            │
│ Online Reviews of│─────┘   ┌────────────────────────────────────┐
│ P2P Service     │          │ Service Provider                    │
│  Provider       │          │  1. P2P vs. Commercial Provider (H₁) (Study
└─────────────────┘          │     1 and Study 2)                  │
                             │  2. Amateur vs. Professional P2P Provider
                             │     (H₂) (Study 3)                  │
                             │  3. Warm vs. Competent P2P Provider (H₃)│
                             └────────────────────────────────────┘
```
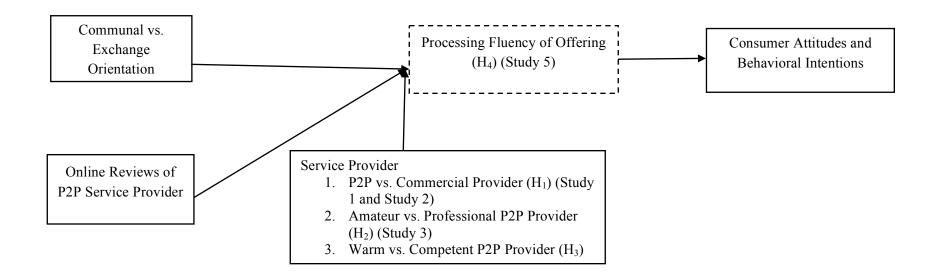
FIGURE 2

STUDY 4: RELATIONSHIP ORIENTATION, P2P SERVICE PROVIDER POSITIONING, AND
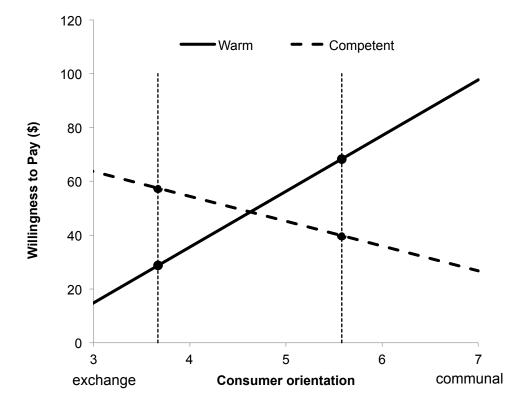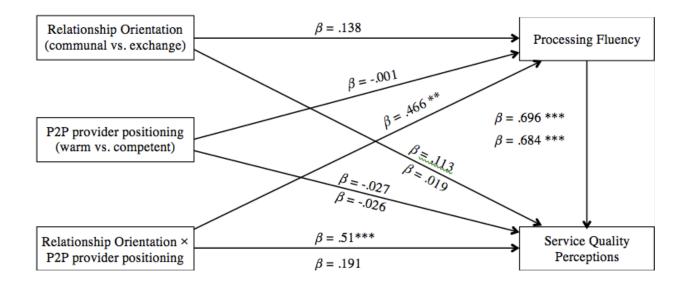
WILLINGNESS TO PAY

FIGURE 3

STUDY 5: MEDIATING ROLE OF PROCESSING FLUENCY OF SERVICE OFFERING

Indirect effect of relationship orientation × P2P provider positioning: a × b = .3187, 95% CI [.0007, .6203]

*** $p < .01$, ** $p < .05$, * $p < .1$

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