

## **Role Transitions at the Prosumer Level: Spillover Effects in the Collaborative Economy from an Interactive Marketing Perspective**

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## **Role Transitions at the Prosumer Level: Spillover Effects in the Collaborative Economy from an Interactive Marketing Perspective**

### **Structured abstract**

**Purpose.** Prosumers, i.e., consumers who act as resource providers or producers, are a distinctive feature of the collaborative economy (CE). Enabling consumers to shift roles from user to supplier of goods or services and vice versa is a key aspect of the CE and can be framed within the broader interactive marketing perspective. However, little is known about how consumers transition specifically from user to provider.

**Methodology.** This study identifies and tests the key factors that motivate the user-provider transition by introducing the spillover effect from the pro-environmental literature into collaborative practices and using four experimental designs. Considering behavioral characteristics, context, intrinsic variables, and socialization, this study provides an in-depth understanding of the process of transition from user to supplier in the CE.

**Findings.** The results suggest the interactive nature of the spillover as peer influence boosts changes in individual motivations, preferences, and behaviors. Furthermore, promoting solidarity between members of the CE platform facilitates the transition of participants from users to providers. In addition, the users' perception of socialization, satisfaction, and sense of indebtedness may also play a significant role in the transition.

**Research implications.** The study highlights the process underlying the switchover from user to provider at the prosumer level. More specifically, this study identifies key variables influencing the intention to switchover in the CE by drawing on the spillover effect from pro-environmental behavior and considering the spillover as an interactive process.

**Practical implications.** Managers who wish to develop collaborative systems must attract a critical

mass of providers to ensure the viability of their systems. Instead of recruiting new providers, managers may convert existing users into providers. This study identifies the key variables to modulate to this end.

**Originality.** The findings offer important managerial implications and shed new light on the CE literature.

**Keywords:** Collaborative economy; pro-environmental behavior; spillover effect; switchover; role transitions.

## 1. Introduction

Consumers' rising proclivity to convert from user to provider and vice versa – to prosume - is attributable to what Wang (2021) identified as major driving forces that entirely reshaped interactive marketing and marketing in general. These forces encompass technical advancement that fuels interactive marketing with powerful tools (e.g., artificial intelligence, virtual reality, augmented reality, beacon technology, chatbots, big data, social recommender systems), platform revolution, which provides new business ecosystems for consumer interactivities and connections, the advent of participatory culture and fandom that promote customer engagement, and the proliferation of social media that epitomize interactive marketing (Wang, 2021, pp. 1-2).

Past research offers substantial insights into consumer participation, commitment, and engagement induced by brand-produced content (Bao and Wang, 2021; Mostafa, 2021; Dessart and Veloutsou, 2021; Hamzah *et al.*, 2021) and user-generated content (Jonas, 2010; Corrêa *et al.*, 2020; Muda and Hamzah, 2021; Rasool and Pathania, 2021). Furthermore, social commerce extended the concept of interactivity to the domain of product and service exchanges (Handarkho, 2020). Meanwhile, the literature on the sharing economy, collaborative economy (CE), collaborative consumption (CC), secondhand exchanges, and alternative exchange systems

provided insights on the two-sided consumer with a particular focus on the study of obtainer motivations (Park and Armstrong, 2019; Ek Styvén and Mariani, 2020) and provider motivations (Chu and Liao, 2007; Ertz *et al.*, 2015). Yet, there is a dearth of research on the switchover process at the heart of the prosumer, which drives users to become providers. Therefore, this study conceptualizes the switchover process in the context of collaborative economy platforms (CEP) from an interactive marketing perspective as the interactive process of role conversion from user to provider.

Several studies have shown a correlation between the user and provider motivations in the CE (Chu and Liao 2007; Costello and Reczek 2020; Ertz *et al.*, 2017), defined as “an economy built on distributed networks of connected individuals and communities versus centralized institutions, transforming how we can produce, consume, finance, and learn” (Botsman and Rogers 2010, p.1). However, only a few studies considered how consumers move from user to provider. Studies focusing on monetary exchanges, typically secondhand purchases and resale, have emphasized the role of financial motives in driving the switch from buyer to reseller and theorized the concept of “planned resale intentions,” which are intentions to resell a product before its firsthand purchase (e.g., Chu and Liao, 2007). Nguyen *et al.* (2020)’s concept of interchangeability in the CE appears closest to the switchover concept since it refers to “the ability to act as both service provider and service user” (Nguyen *et al.*, 2020, p. 506). Interchangeability appears pivotal in spurring trust and participation, while social proximity strengthens the positive link between interchangeability and trust. However, interchangeability was framed as broadly encompassing all kinds of switches (non-user to user, user to provider, provider to user), lacking focus on the user to provider switch.

A comprehensive understanding of user to provider transition is essential because the success

of collaborative business models depends on their ability to recruit adequate suppliers; otherwise, demand would decline (Chu and Manchanda, 2016; Eisenmann *et al.*, 2006). Indeed, suppliers have 3.5 times more impact than users on collaborative systems' growth (Chu and Manchanda 2016). The study by Ertz *et al.* (2021) contextualized drivers and inhibitors of the transition from user to supplier, but their results are limited in generalizability due to an exploratory research design. A better understanding of the factors underlying switchover from user perceptions would enable CE managers to devise superior provider recruitment strategies. Supplied with knowledge about the most important variables to modulate, CE managers would be able to spur user-provider switchover and garner more providers.

The present study addresses these gaps in the literature. We posit that a switchover effect carries out the transition from user to provider and is, therefore, at the heart of the prosumer concept in the CE. Furthermore, we make the case that the switchover effect is linked to the spillover effect cited in the pro-environmental literature (Harland *et al.*, 1999; Thøgersen, 1999; Truelove *et al.*, 2014; Van der Werff *et al.*, 2014). Drawing on this theoretical corpus, the current research identifies and tests via an experimental design the key variables that motivate the transition from user to supplier and thereby advances our understanding of the prosumer through deeper insights on consumers' switchover in the CE.

The key variables used in this research are taken from the PEB literature and are the main drivers of the PEB spillover effect and are thus applied to the CE switchover effect. They include behavioral characteristics such as perceived level of difficulty and perceived level of uniqueness of the behaviour as examined by Van der Werff *et al.* (2014); context (commercial vs. non-commercial; and solidarity vs. non-solidarity) based on Truelove *et al.* (2014); as well as personal variables including autonomy, satisfaction, and self-efficacy as intrinsic motives (Corral-Verdugo

*et al.*, 2016). Additionally, since the CE is characterized by high user interaction (Qasem *et al.*, 2018; Belk, 2014; Ertz *et al.*, 2021), the socialization variable (i.e., socially interacting or mixing) has been added as it is one of the four critical pillars of collaborative consumption (Botsman and Rogers, 2010).

This study contributes to the literature in multiple ways. First, since the role conversion between user and provider is an interactive process, this work draws on and contributes to the fast-growing interactive marketing literature as it incorporates insights from the active and interactive role of consumer participation, involvement, engagement, and consumer-brand interaction and brand co-building processes to advance the prosumer literature. Second, it introduces the concept of the switchover effect - which was non-existent in the literature on CE – drawn from the spillover effect in the PEB literature (e.g., Truelove *et al.*, 2014; Van der Werff *et al.*, 2014) - as a potential explainer for the changing role of consumers which is at the heart of the prosumer notion (i.e., transition from user to provider role, and vice-versa). In this paper, the focus will be put on the transition from consumer to provider. Third, contrary to previous related studies, which mainly used conceptual or qualitative designs, this research uses an experimental design to understand and measure the impacts of key variables on consumers' intention to change roles from user to provider in the CE. Fourth, the present study provides original insights into the behaviors of consumers who participate in the CE by quantitatively estimating the impact of different vital variables and their interaction effects. Fifth, using multiple studies pertaining to other collaborative practices or exchange modes, the study findings are not restricted to a specific collaborative practice but apply transversally to a broad range of collaborative exchange modes. Finally, the study contributes methodologically to the literature since it uses a quantitative research design to examine consumer switchover as an interactive process. In contrast, past research mainly drew on

conceptual-level discussions or used qualitative designs.

## **2. Literature review**

### **2.1. Technology and interactivity underlying prosumers' rise**

#### *2.1.1. Interactivity via brand-produced content*

Asymmetrical and one-directional direct marketing from firm to consumer gradually morphed into symmetric and multi-directional interactive marketing, as evidenced by the evolution of publications in the *Journal of Research in Interactive Marketing* (JRIM) (Lim et al., 2022). In fact, an increasing number of opportunities to interact with brand content blurred the consumer-corporation divide and spurred a deep-rooted culture of consumer participation, commitment, and engagement (Bao and Wang, 2021; Mostafa, 2021; Dessart and Veloutsou, 2021; Hamzah *et al.*, 2021), customer brand advocacy (Bhati and Verma, 2020), and even purchase intentions (Muda and Hamzah, 2021; Izogo and Mpinganjira, 2020). In their study on brand microblogging, Bao and Wang (2021) showed that argument quality and source credibility of brand microblogs are important factors that enhance consumers' community commitment and trust toward the microblog, fostering their participation intention. Mostafa (2021) mentioned a "consumer e-empowerment effect," which mediates the effect of perceived social capital on consumer engagement with Facebook brand pages. Social media consumer engagement research emphasized how consumers positively respond to interactive and novel posts, which generate consumer engagement and further influence all customer-brand relationship facets (i.e., brand love, customer-brand identification) (Hamzah *et al.*, 2021). Several studies also emphasized the interaction between physical and online settings. For example, Vazquez (2020) demonstrated that product importance and usage frequency in the physical world trigger digital engagement in the form of willingness to recommend online. Interestingly, consumer-brand identification results in positive consumer

brand attitudes and behaviors and shields the brand from negative online advertising (Graham and Wilder, 2020). Whether through brand microblogs, social media pages, or posts and, more broadly, owned social media content marketing (OSMCM) (i.e., conversation, storytelling, consumer interaction, and participation), these tools spur brand community identification which leads to brand desirable outcomes, such as brand loyalty (Dessart and Veloutsou, 2021), favourable brand personality perceptions and attitudes towards the brand (He *et al.*, 2021). It comes as no surprise that content marketing has become “a key pillar in a company’s marketing mix” and “a requisite for companies seeking to modernise their marketing practices through digitalisation to enhance online branding” (Ho *et al.*, 2020, p. 133). Building content marketing capabilities for organizations has become as crucial as building other vital strategic capabilities.

In sum, technical advances have enabled users to interact more extensively with brand content fuelling their participation, commitment, and engagement, as well as to interact with each other and the world (UGC). The emergence of interactive consumers gave rise to the creative consumer, eventually baptized as *prosumer*. The interactions dealt with in the previous subsections remain limited to informational content. Yet, interactivity is also embedded in the exchange of products and services, as epitomized in social commerce. Social technology is the dominant factor influencing users’ intention to use social commerce (Handarkho, 2020), which ties back to Wang’s (2021) emphasis on technical advancement in spurring interactivity.

The interactivity induced by brand-consumer interactions and social commerce in online contexts is, therefore, a primer to understanding the transition from a consumer to a producer role because brand-content interactions consist of both content-consumption and content-contribution (Qin, 2020). Likewise, in collaborative consumption, individuals can act as users (e.g., purchasing a car secondhand) or as providers (e.g., reselling a car). The switchover process can thus be framed



as an “extended interactivity” or a “generalized interactivity” in which an individual interacts with multiple individuals and organizations by using and providing various tangible and intangible resources.

### **2.1.2. Interactivity through user-generated content**

Brand content is only the tip of the iceberg, as user-generated content (UGC) grew exponentially, giving rise to the new consumer character in marketing; the “creative consumer” (Cova and Cova, 2009, p. 92), which represents the transition of a passive consumer to an active one that dialogues, endorses various roles and integrates resources. This new consumer would eventually be named “the consum’actor,” the “protagonist,” or more comprehensively, the “prosumer” (Arnould, 2007, p. 192). To Arnould (2007):

“the central point to take away from all these linguistic contortions is that the co-creative producer of authentic and autonomous experiences [that the consumer has become today] is far removed from the passive mass-market consumer that was the hallmark of the consumerist boom post-war” (p. 192)

UGC sparked marketing attention in this regard as consumers began to trust and rely more on UGC than on company-produced content for their purchase decisions (e.g., Jonas, 2010). As a derivative of UGC, influencer marketing became particularly prevalent because influencers are connected to the feelings and interests of their followers (Corrêa *et al.*, 2020). In fact, engagement enhanced self-connection, love, and trust inspired by influencers impact consumer use intention (Corrêa *et al.*, 2020). Source credibility is crucial in this regard (Jonas, 2010). Using co-production engagements with independent content creators who are ordinary consumers, should complement the sponsoring of high-profile influencers and celebrities, as the former may trigger stronger

credibility, which affects purchase intention and electronic word-of-mouth (eWOM) through enhanced attitude toward UGC (Muda and Hamzah, 2021). Other characteristics that lead to influencers' fame and opinion leadership are storytelling, content quality, consistency between actual and aspired image homophily, and platform fit (Al-Emadi and Ben Yahia, 2020). UGC is also of value in specific industries that need to keep pace with rapidly changing consumer perceptions (e.g., airlines). UGC big data mining using sentiment analysis constitutes a complement or an alternative to survey-based models because it investigates real-time consumer insights (Rasool and Pathania, 2021).

While consumer-to-consumer exchanges were limited to digital objects (e.g., file-sharing) at the beginning, platforms, online portals, and social media soon enabled the circulation of much more diverse types of resources on social media, particularly through social commerce. While social commerce differs from traditional commerce in that it occurs via social media and entails, therefore, a higher level of interactivity, it is akin to the broader area of consumer-to-consumer exchanges, also known as collaborative consumption (Ertz *et al.*, 2019) in which consumers are inherently two-sided with the possibility to endorse a consumer or a provider role.

The association between UGC and the switchover process can eventually be summarized as follows: user-generated content (UGC) enabled by interactive marketing is a small-scale version of the larger-scale switchover process from users to providers.

## **2.2. The transition process from user to provider**

The past decade has seen a significant increase in research on suppliers' motivations for goods and services in contexts as diverse as alternative markets (Albinsson and Perera 2012), peer-to-peer rentals (Hawlitsek *et al.*, 2018), clothing exchanges (Albinsson and Perera 2018), and in

intercultural contexts (Albinsson *et al.*, 2019). Subsequently, although motivations for acquiring (or using) and disposing of (or providing) objects became more apparent, according to Ertz *et al.* (2017, 2021), the underlying process of transitioning from user to provider remains undetermined.

Philip *et al.*'s (2018, 2015) research comes closest to studying the transition process from user to provider in online peer-to-peer rental and exchange. The authors classify participants in one of three functions: (1) one-way users who act as users only or providers only; (2) two-way users who use and provide; and (3) non-users. While this classification offers a better understanding of the factors that lead non-user consumers to become users, the study does not identify the factors that explain the shift from a user to a provider on peer-to-peer platforms (Ertz *et al.*, 2017). Drawing on Philip *et al.* (2018, 2015), Albinsson *et al.* (2019) identified the factors that lead non-users to become users: perceived sustainability, materialism, generosity, trust, risk-taking, and cultural factors. Nevertheless, delineations on the process of transitioning from one role to another remain absent.

More recently, Nguyen *et al.* (2020) proposed that interchangeability fosters users' trust and participation intentions either as a user, provider, or both. Besides, perceived social proximity mediates the positive influence of interchangeability on trust. Similarly, Ertz *et al.* (2021) identified the social variables that explain the switchover from user to provider: the perception of socialization and peer influence. Their exploratory study also highlighted the role of personal values, learning experience with the CE system, and mutuality as critical enablers of the switchover, while distrust in strangers, sense of intimacy, lack of resources to share, and lack of skills inhibit the switchover.

Despite this growing corpus of research, a gap remains in elucidating the specific variables that explain the user-provider switchover. Overall, the literature offers emerging themes and

theoretical foundations for further research on the transition process from user to provider roles. However, the research design (e.g., qualitative) or research scope and objectives of those studies do not provide generalizable insights into the user to provider switchover process. The current study, therefore, contributes to this burgeoning literature by identifying the key variables drawn from the PEB literature (e.g., Harland *et al.*, 1999; Thøgersen, 1999; Truelove *et al.*, 2014; Van der Werff *et al.*, 2014) that support the transition from user to prosumer, which is at the heart of the prosumer concept in the CE.

### **3. Theoretical development**

#### **3.1. The spillover effect and its relation to the switchover effect**

To understand the switchover effect from user to provider, we must first consider the notion of spillover effects. Although studied in various academic domains, such as marketing, economics, psychology, environmental behaviors, and international relations, the spillover effect associated with PEB (e.g., Harland *et al.*, 1999; Thøgersen, 1999; Truelove *et al.*, 2014; Van der Werff *et al.*, 2014) is the closest to the switchover effect since it occurs at the consumer level. Spillover effects occur when PEB in one or more areas spreads to other domains (Thøgersen, 1999). Spillover effects can be positive or negative (DEFRA, 2008; Truelove *et al.*, 2014). For example, positive (negative) spillover occurs when implementing a local plastic bag tax favours (dampens) plastic bag recycling behavior.

The switchover effect is associated with the spillover effect in that it refers to the sequential aspects of a reaction chain or a passage from an “A” point to a “B” point and that this passage involves the same person. Besides, a spillover effect can occur in the switchover process from user to provider since the user who is familiar with the product or service can carry that knowledge and attitude about the product or service into the provider role. In sum, spillover refers to the intrinsic

mechanism of role transition in the same person, while switchover reflects the extrinsic behavior in the role-playing of the user and provider<sup>1</sup>. Only swapping represents a special case by involving simultaneous use and provision. However, since research has not adequately conceptualized the switchover effect, the process underlying the switchover process in the CE remains unclear, particularly in the transition from a user to a supplier of goods or services.

### **3.2. Variables explaining the switchover effects in the collaborative economy**

A review of the spillover literature identifies three focal types of variables (i.e., behavioral characteristics, context, and individual variables) explaining the spillover (Truelove *et al.*, 2014; Van de Werff *et al.*, 2014; Corral-Verdugo *et al.*, 2016; Thøgersen, 2004). These variables could similarly explain the switchover since it is associated with spillover, as described earlier. Indeed, these variables overlap with Ertz *et al.*'s (2021) inductive model of switchover, which also proposes a fourth type of variable that relates to the social dimension of the CE. These four variable types are explained in more detail next.

#### **3.2.1. Variables related to behavioral characteristics**

Behavioral characteristics include perceived level of difficulty, uniqueness of the behavior, and consequences of past behavior. The difficulty of the behavior is the perceived level of effort needed to perform the behavior, and the higher it is, the less likely spillover will occur (Truelove *et al.*, 2014; Van de Werff *et al.*, 2014). The uniqueness of the behavior refers to the number of people performing the behavior, with the more (less) people performing it, the less (more) unique the behavior (Truelove *et al.*, 2014; Van de Werff *et al.*, 2014). Interestingly, although perceived difficulty dampens the spillover effect, seeing others perform the behavior despite its difficulty may spur a positive spillover effect (Van der Werff *et al.*, 2014). This two-way interaction occurs

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<sup>1</sup> We thank an anonymous reviewer for this suggestion.

through a heightened sense of personal identity: Performing a difficult behavior brings satisfaction while performing a prevalent behavior fosters personal identity by fortifying a sense of fitting in and belonging (Van de Werff *et al.*, 2014). In that sense, both difficulty and uniqueness are conducive to spillover effects. The same argument might hold for the switchover in the CE; if the collaborative behavior is perceived as difficult but popular with many people performing it, this might foster users' identity and spur switchover.

The consequences of past behavior refer to how a given behavior results in a positive or a negative outcome. Steg and Vlek (2009) stressed the importance of past behavior in forming habits and proposed that past positive consequences arising from a given PEB might trigger a desire to engage in a different, although related PEB. In the CE context, Ertz *et al.* (2021) showed that experience with collaborative behaviors induces the switch because users gain trust in the system, gain self-confidence, and develop expertise. Therefore, positive outcomes from a user role might trigger a desire to engage in a different but dyad-related role of the provider.

Based on the literature and arguments presented above, we propose the following hypotheses:

**H1:** Users with (a) low perceived level of difficulty, (b) low perceived level of uniqueness, and (c) more frequent past behavioral achievement switch more favorably to a provider role.

**H2:** The interaction of perceived difficulty and popularity of the behavior has a significant favorable effect on the likelihood of a user switching to a provider.

### **3.2.2. Variables related to the context**

Behavior can be attributed to internal causes such as individual variables and external causes, i.e., the context (Corral-Verdugo *et al.*, 2016; Thøgersen, 2004). Past studies have indicated that context should be taken into account when investigating spillover effects because the setting is a powerful influence on the adoption of initial and subsequent behavior (Corral-Verdugo *et al.*, 2016; Nilsson

*et al.*, 2017; Thøgersen, 2004; Trope *et al.*, 2007; Whitmarsh and O’Neill, 2010; Ertz *et al.*, 2016). In the PEB literature, contextual elements include any external stimuli exerting influence on individuals, such as “public education campaign, tax incentive, provision of [...] infrastructure such as curbside recycling, and regulatory policy” (Truelove *et al.*, 2014, p. 128), financial incentives or verbal rewards (Lanzini and Thøgersen 2014; Nilsson *et al.*, 2017).

A specific aspect of context, mutuality, appears crucial in enabling the switch to a provider role (Ertz *et al.*, 2021). Mutuality refers to a mechanism of reciprocal services and favors which fuel solidarity (Arnould and Rose, 2016). Through collaborative systems, individuals see peers as providers of much-needed resources or services (Ertz *et al.*, 2021) and thus may perceive them as charitable and generous. Solidarity ensuing the experience of mutuality in collaborative settings appears to be a crucial feature for spurring switchover effects.

Solidarity might be naturally ascribed to non-commercial collaborative systems (e.g., gift-giving, free lending, swapping) (Komter, 2005), thus rendering its impact more relevant in such contexts. However, one might argue the contrary since financial motives predominantly determine provision. If a collaborative context does not entail money-based transactions, what would be individuals’ motives to act as providers? And what would trigger users to become providers? First, money-based transactions are not the norm but the exception in the CE if we consider free exchange types (e.g., donation, free rental, sharing). Second, past research demonstrated that utilitarian and economic motives principally influence users. In contrast, providers are affected by a broader range of non-utilitarian and non-financial factors, including benevolence, altruism, commodity, and generosity (Bucher *et al.*, 2016). For example, benefit from secondhand purchases leads to a feeling of benefitting from others’ benevolence, which might prompt users to contribute in kind by offering items to sell to the community. Therefore, the characterization of a context as

commercial or solidary needs to be studied distinctively. In this sense, past studies are unanimous on the importance of the financial factor in driving either the user or the provider role (e.g., Armstrong Soule and Hanson, 2021). Consequently, it might be posited that a context favoring money-based transactions is more likely to convert users into providers because they will access financial gains as providers. Since both variables are closely associated, they might interact meaningfully. Therefore:

**H3:** Both (a) non-commercial settings and (b) solidarity settings increase users' proclivity to become providers.

**H4:** The interaction of non-commercial settings and solidarity settings has a significant favorable effect on the likelihood of a user switching to a provider.

### **3.2.3. Variables related to individual (or intrapsychic) aspects**

Intrapsychic variables mainly consist of motivational factors, and this research draws on Self-determination theory (SDT) as the reference theoretical framework. SDT evaluates the degree to which an individual's behavior is self-determined (i.e., self-motivated). According to Ryan and Deci (2000), there are three layers of motivation: amotivation (lack of contingency between a behavior and the results that this behavior produces, suggesting a lack of motivation), extrinsic motivation (the behavior is performed to gain external rewards [e.g., money, social reputation]), and intrinsic motivation (the most self-determined behavior positing that behavior is enacted due to its inherent appeal and intrinsic value) (Ryan and Deci, 2000; Corral-Verdugo *et al.*, 2016). Intrinsic motivation is, therefore, the most interesting layer of motivation, and it comprises feelings of autonomy, satisfaction, and self-efficacy. Unsurprisingly, previous literature (e.g., Corral-Verdugo *et al.*, 2016) suggested that these variables appear highly influential in spurring spillover effects and might therefore be relevant for the switchover.



According to Ryan and Deci (2000), a sense of autonomy is a positive feeling through which individuals perceive their competency and experience their behavior as self-determined, which enables them to achieve a sustained and increased state of intrinsic motivation. To Corral-Verdugo *et al.* (2016), autonomy is pivotal in determining spillover effects. Likewise, autonomy should play a crucial role in enacting switchover.

Satisfaction is an intrinsic positive evaluation of a behavior fulfilling an individual's expectations (Ryan and Deci, 2000). Satisfaction has been identified as contributing to the spillover effect (Corral-Verdugo *et al.*, 2016) and should similarly be a key enabling factor in the switchover process.

Self-efficacy is derived from an individual's belief regarding their capacity or competency to do a task (Bandura *et al.*, 1999). To Corral-Verdugo *et al.* (2016) and Corral-Verdugo (1996), competency gained with one PEB very likely generates heightened self-efficacy motivation which is key in enabling other sustainable behavior. Similarly, stronger self-efficacy is likely to increase the likelihood of a switchover. We also anticipate that the three variables will interact with each other to influence switchover intentions. Therefore:

**H5:** Users with (a) high autonomy, (b) high satisfaction, and (c) high self-efficacy switch more favorably to a provider role.

**H6:** The interaction of autonomy, satisfaction, and self-efficacy has a significant favorable effect on the likelihood of a user switching to a provider.

#### **3.2.4. Variables related to socialization**

In contrast to PEB, the CE involves an inherent communitive aspect (Qasem *et al.*, 2018). Although community collaboration may be stronger in some systems (e.g., community-supported agriculture) than in others (e.g., Uber) (Belk, 2014), it remains a relatively unique feature of the

CE from its very conceptualization and operationalization (Botsman and Rogers, 2010). Hence, while the literature on spillover effects in PEB contexts did not consider variables related to socialization, past literature in CE includes sociality as a key enabler of the switchover effect (Ertz *et al.*, 2021). Furthermore, sociality effects might be spurred by peer influence, socialization, and social debt.

Peer influence refers to socialization processes through social interactions (Smith *et al.*, 1985). Past research suggests that peer influence plays an essential role in the switchover process because users' social circles influence them to become providers (Ertz *et al.*, 2021). These social circles include friends, family members, colleagues, and other acquaintances who could affect an individual.

Past literature has shown that social motives are not necessarily impactful in driving collaborative consumption because individuals are primarily driven by utilitarian purposes (Bardhi and Eckhardt, 2012; Lamberton and Rose, 2012). However, studies focusing on in-person exchange settings such as flea markets, garage sales, car boot sales, or secondhand stores highlighted the importance of social interactions in these contexts (Sherry, 1990; Stone *et al.*, 1996; Gregson and Crewe, 2003; Hur, 2020). Furthermore, research focusing on the switchover process has confirmed the experience of socialization as a determining factor, where CE exchange participants appreciate the opportunity to interact meaningfully with others and seek to reproduce those pleasurable experiences while providing resources and services to others (Ertz *et al.*, 2021).

Social debt has been a recurring theme in explaining switchover because provision might occur in response to a feeling of reciprocity (Philip *et al.*, 2015, 2018). Social indebtedness refers to the situation in which, after having obtained resources and services, a user feels a sense of moral obligation to reciprocate in a generalized (providing without expecting anything in return) or

balanced reciprocity (calibrating what is provided to what has been obtained) by switching to a provider role (Ertz *et al.*, 2021). We also anticipate that the three variables will interact with each other to influence switchover intentions. Based on the literature and arguments presented above, we propose the following hypotheses:

**H7:** Users with higher levels of (a) peer influence, (b) socialization, and (c) social debt switch more favorably to a provider role.

**H8:** The interaction of peer influence, socialization, and social debt has a significant favorable effect on the likelihood of a user switching to a provider.

### **4.3. Overview of Studies**

We conducted four experiments to test our hypotheses. Appendix 1 provides an overview of the four studies and their main findings. Study 1 examines the consumer intention to become a provider in the CE by testing characteristics related to behavior. This experiment was conducted with collaborative housing users to test their propensity to become collaborative housing providers. Study 2 selects the product sharing field for experimental design to examine consumer intention to become a product provider in the CE by testing contextual variables. In Study 3, a between-subject experiment was conducted in the car rental service field to examine the consumer intention to become a provider (car lender) in the CE by testing individual variables. Finally, focusing on the carsharing service, Study 4 examines consumer intention to become a provider in the CE by testing socialization variables.

## **5. Study 1: Behavioral Characteristics**

### **5.1. Methodology**

Study 1 examines the consumer intention to become a provider in the CE by testing behavioral characteristics. To test the hypotheses, and following Malhotra and Dash (2016), we conducted a

2 (perceived difficulty of the behavior [LEVEL]: EASE vs. DIFFICULTY) × 2 (perception of the number of people realizing the behavior [NUMBER]: FEW vs. MANY) × 3 (past behavioral achievement [FREQUENCY]: none, only one, two or more) experiment. Both LEVEL and NUMBER were treated as between-subject variables, and FREQUENCY was estimated as a within-subject variable, i.e., submitted to all respondents. The study procedure involved a collaborative housing platform.

*Design and participants.* The survey instrument was created using Qualtrics, and participants were selected from the MTurk online platform. Purposive sampling was used to select participants who met the study's needs and objectives, namely those who had already engaged in collaborative practices in the past and know what it is. After reading the introduction page, participants were randomly assigned to four conditions, each presenting a fictitious scenario for a collaborative housing platform. As shown in Appendix 1, each scenario differs in scene description along with the LEVEL (perceived difficulty) and NUMBER (perceived uniqueness) variables. This focal exercise was followed by a filler exercise unrelated to the study. The respondents were then redirected to the online questionnaire and asked to answer all the questions. Finally, a pretest (n = 107) ensured that the study procedure (e.g., filler questions, manipulation check) worked well and that the items were understandable. Since no issue was identified during the pretest, we proceeded to actual data collection. A total of 207 participants completed this experiment, consisting of 45% women, 61.8% aged 35 years or less; 77.5% with an annual income lower than \$80,000; 34.9% with a university degree; 50.7% homeowners.

*Description of variables.* The dependent variable is individuals' propensity to become a collaborative housing provider (Totally disagree 1–2–3–4–5–6–7–8–9 Totally agree). For the manipulation check of the independent variable priming, participants were asked to indicate how

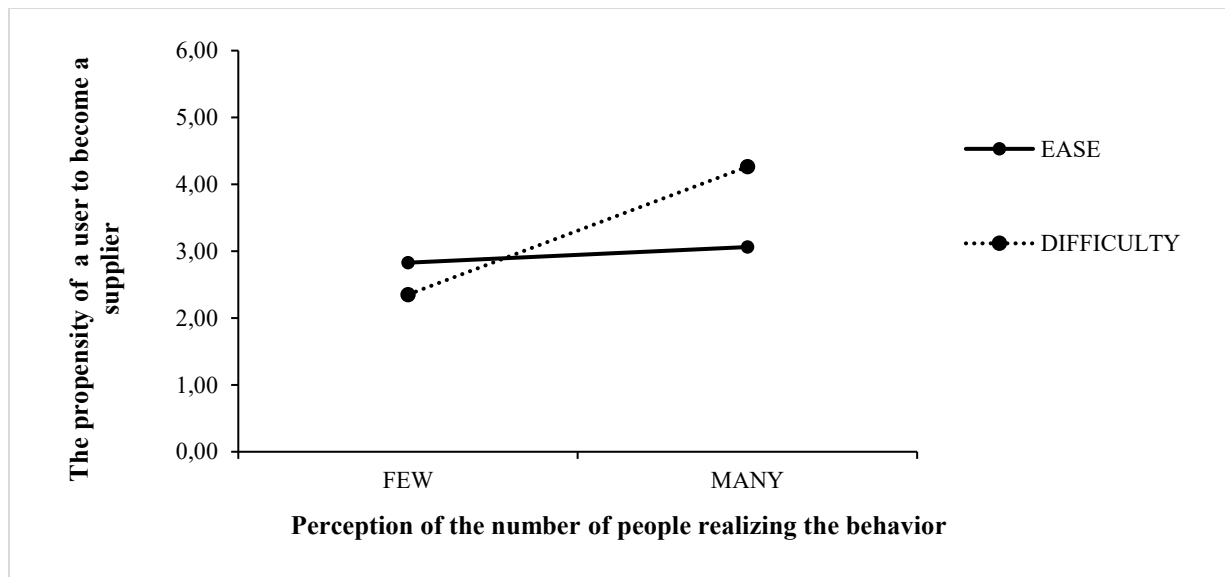
easy they think it is to book housing on a collaborative housing platform (i.e., perceived difficulty) (LEVEL) (Very easy 1–2–3–4–5–6–7–8–9 Very difficult) and to what extent they agree with the following statement: Many people use collaborative housing platforms (i.e., perceived uniqueness) (NUMBER) (Totally disagree 1–2–3–4–5–6–7–8–9 Totally agree). In addition, a screening question about the frequency of usage of the accommodation service (FREQUENCY) (none, only one, two or more) served to measure the frequency of the behavior in the past. Besides, control variables (i.e., age, sex, income, education, and primary employment status) were collected at the end of the questionnaire.

## 5.2. Results and discussion

*Manipulation check.* We conducted an independent-sample *t*-test based on the variable LEVEL. The results show differences in the expected direction ( $M_{EASE} = 2.42$ ,  $SD = 1.189$  vs.  $M_{DIFFICULTY} = 6.47$ ;  $SD = 1.092$ ;  $t [205] = 24.940$ ,  $p < 0.001$ ). For NUMBER, the results are again in the expected direction ( $M_{MANY} = 7.63$ ,  $SD = 1.149$  vs.  $M_{FEW} = 2.98$ ,  $SD = 1.414$ ;  $t [205] = 26.031$ ,  $p < 0.001$ ). Collectively, these manipulation checks indicate that the manipulation was successful; the participants correctly perceived and interpreted the stimulus. Thus, we can draw more accurate conclusions about the relationship between the independent and dependent variables.

*Switchover effect.* A 2 (perceived difficulty of the behavior)  $\times$  2 (perception uniqueness of the behavior)  $\times$  3 (past behavioral achievement) ANOVA on the propensity to become a supplier on collaborative hosting platforms revealed a simple main effect of past behavioral achievement (FREQUENCY) ( $F(2, 197) = 5.434$ ,  $p < 0.01$ ). Individuals who have (not yet) used an accommodation service provided by another consumer using an online platform are more (less) likely to complete the consumer-provider transition ( $(M_{one} - M_{none}) = 1.715$ ,  $p < 0.05$ ;  $(M_{two\ or\ more} - M_{none}) = 1.780$ ,  $p < 0.01$ ). In addition, there is a simple main effect of perceived uniqueness

( $M_{\text{MANY}} = 3.95$  vs.  $M_{\text{FEW}} = 3.08$ ;  $F(1, 197) = 7.464$ ,  $p < 0.01$ ), indicating that respondents who perceive that many people use collaborative housing platforms are more likely to complete the transition from consumer to provider. However, the simple main effect of perceived difficulty on intentions to switchover was not significant, and the control variables also had no significant effect on the dependent variable. More importantly, there was a significant two-way interaction between perceived difficulty and perceived uniqueness ( $F(1, 197) = 4.789$ ,  $p < 0.05$ ), as shown in Figure 1. Although difficulty in the behavior initially rebukes respondents under the high difficulty condition, the perception of many individuals performing the behavior generates stronger switchover intentions than the perception of fewer individuals performing it ( $M_{\text{MANY}} = 4.263$  vs.  $M_{\text{FEW}} = 2.351$ ;  $F(1, 197) = 7.464$ ,  $p < 0.001$ ). Collectively these results validate H1b-c and H2, but not H1a.



**Figure1.** The propensity to become a supplier by perceived difficulty and perceived uniqueness.

### 5.3. Discussion of the results

In the context of the CE, the difficulty or ease of the behavior itself does not substantially influence the switchover process. However, if the behavior is perceived as both difficult and enacted by many people, users are more likely to switchover to provider roles. This finding extends Van der

Werff *et al.*'s (2014) postulate on PEB spillover to the context of CE switchover. The absence of a direct effect of perceived difficulty (H1a) could be explained by the study design, which interacts difficulty with popularity and emphasizes the comparatively higher importance of popularity of the behavior to enact the switchover.

## **6. Study 2: Context**

### **6.1. Methodology**

Study 2 assesses the effect of contextual variables on switchover intentions. It consists of a 2 (Contextual solidarity [SOLIDARITY]: HIGH vs. LOW) × 2 (Contextual Non-commerciality [NON-COMMERCIALITY]: HIGH vs. LOW) between-subject experiment design.

*Design and participants.* The same procedure as in Study 1, involving both MTurk and Qualtrics, was followed in Study 2. The study involved a fictitious platform for secondhand exchange named Sharegood, as redistribution is an essential facet of the CE (Botsman and Rogers, 2010; Armstrong Soule and Hanson, 2022). Participants who had already engaged in collaborative practices in the past were recruited. A pretest (n = 132) ensured that the study procedure (e.g., filler questions, manipulation check, new scenario) worked well and that the items were understandable. Since no issue was identified during the pretest, we proceeded to the actual data collection. A total of 61 participants completed the study, consisting of 39.7% women; 68.3% aged 35 years or less; 75.3% with an annual income lower than \$80,000; 72.7% full-time employees.

*Description of variables.* The dependent variable is the extent to which users would agree to become a product provider on a platform (Totally disagree 1–2–3–4–5–6–7–8–9 Totally agree). For the manipulation checks, participants were asked to indicate to what extent they think collaborative platforms promote solidarity and non-commercial exchanges between their members (Totally disagree 1–2–3–4–5–6–7–8–9 Totally agree). Control variables (i.e., age, sex, income,

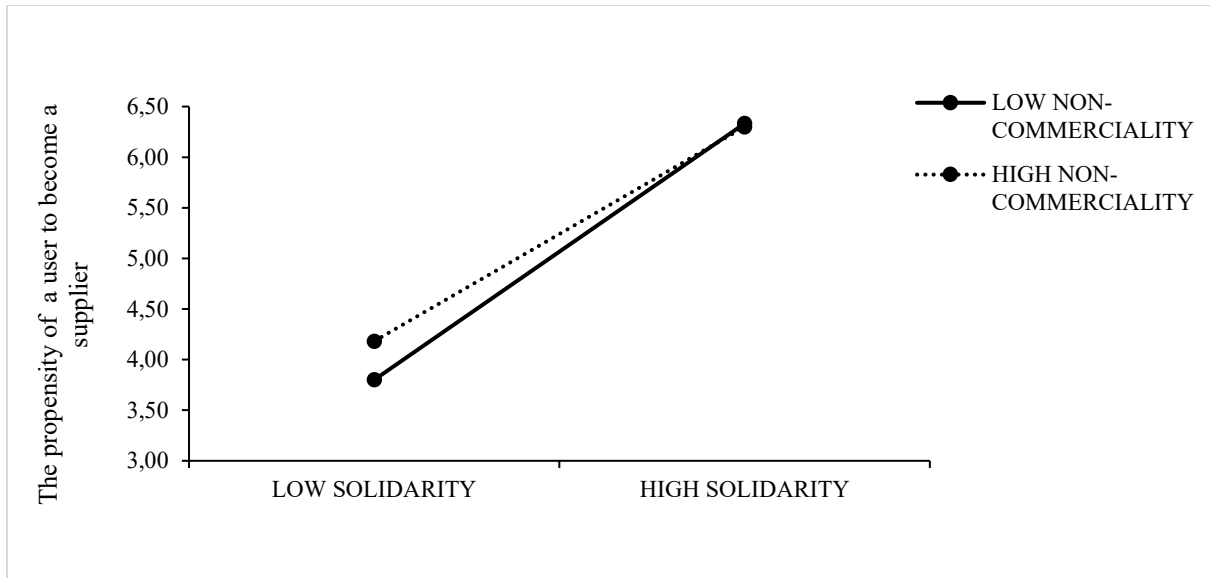
education, main employment status) were also gathered.

## 6.2. Results and Discussion

*Manipulation check.* An independent-sample *t*-test on the variable SOLIDARITY showed differences in the expected direction ( $M_{\text{HIGH}} = 7.06$ ,  $SD = 1.190$  vs.  $M_{\text{LOW}} = 3.66$ ,  $SD = 1.317$ ;  $t[59] = 10.618$ ,  $p < 0.001$ ). A second *t*-test on NON\_COMMERCIALITY also revealed differences in the anticipated direction ( $M_{\text{HIGH NON\_COMMERCIAL}} = 7.05$ ,  $SD = 1.339$  vs.  $M_{\text{LOW NON\_COMMERCIAL}} = 3.81$ ,  $SD = 1.250$ ;  $t[59] = 9.184$ ,  $p < 0.001$ ).

*Switchover effect.* A 2 (Contextual solidarity)  $\times$  2 (Contextual Non-commerciality) ANOVA on propensity to become a supplier on an online platform of secondhand product exchanges revealed a main effect of solidarity ( $M_{\text{HIGH}} = 7.010$  vs.  $M_{\text{LOW}} = 4.093$ ;  $F(1, 17) = 7.620$ ,  $p < 0.05$ ), a two-way interaction effect between solidarity and non-commerciality ( $F(3, 40) = 4.918$ ,  $p < 0.01$ ; see Figure 2), but no main effect of non-commerciality. Specifically, the switchover effect is significantly stronger when the NON-COMMERCIAL context is complemented by a higher level of SOLIDARITY. In fact, simple planned contrasts revealed that this is the case when NON-COMMERCIALITY is at a HIGH level ( $M_{\text{HIGH SOLIDARITY}} = 6.300$  vs.  $M_{\text{LOW SOLIDARITY}} = 4.182$ ;  $F(1, 57) = 7.955$ ,  $p < 0.01$ ), but not when it is at a LOW level ( $M_{\text{HIGH SOLIDARITY}} = 6.333$  vs.  $M_{\text{LOW SOLIDARITY}} = 3.800$ ;  $F(1, 57) = 3.700$ ,  $p > 0.10$ ). These results collectively support H3b and H4, but not H3a.





**Figure2.** The propensity to become a supplier by SOLIDARITY and NON-COMMERCIALITY

### 6.3. Discussion

Study 2 shows that some contextual variables from the literature significantly impact the switchover process. Notably, solidarity facilitates the transition of individuals from users to providers, but non-commerciality does not. Furthermore, the positive effect of solidarity is strengthened by non-commerciality. These results suggest that, although distinct, solidarity and non-commerciality are closely connected and predict switchover intentions. The lack of direct effect of non-commercial settings (H3a) could also be explicable by the study design, which interacts non-commerciality with solidarity and emphasizes the comparatively higher importance of solidarity for enacting switchover.

## 7. Study 3: Individual variables

### 7.1. Methodology

In Study 3, a 2 (level of autonomy [AUTONOMY]: HIGH vs. LOW) × 2 (level of satisfaction [SATISFACTION]: HIGH vs. LOW) × 2 (level of self-efficacy [SELF\_EFFICACY]: HIGH vs. LOW) between-subject experiment examines intention to become a provider in the CE by testing

intrinsic variables.

*Design and participants.* The same procedure as in Study 1, involving both MTurk and Qualtrics, was followed in Study 3. The study involved a fictitious peer-to-peer car rental platform named Jidengo. The sample consisted of consumers who have already conducted collaborative practices in the past. A pretest ( $n = 72$ ) ensured that the study procedure (e.g., filler questions, manipulation check, new scenario) worked well and that the items were understandable. Since no issue was identified during the pretest, we proceeded with the actual data collection. A total of 110 participants have completed the study (38.4% of women; 72.6% are aged 35 years or less; 78.2% have an annual income lower than \$80,000; 80.5% have a university degree; 82.2% own a car; 63% use their personal car as main transportation mode; 72.6% have ever rented a car).

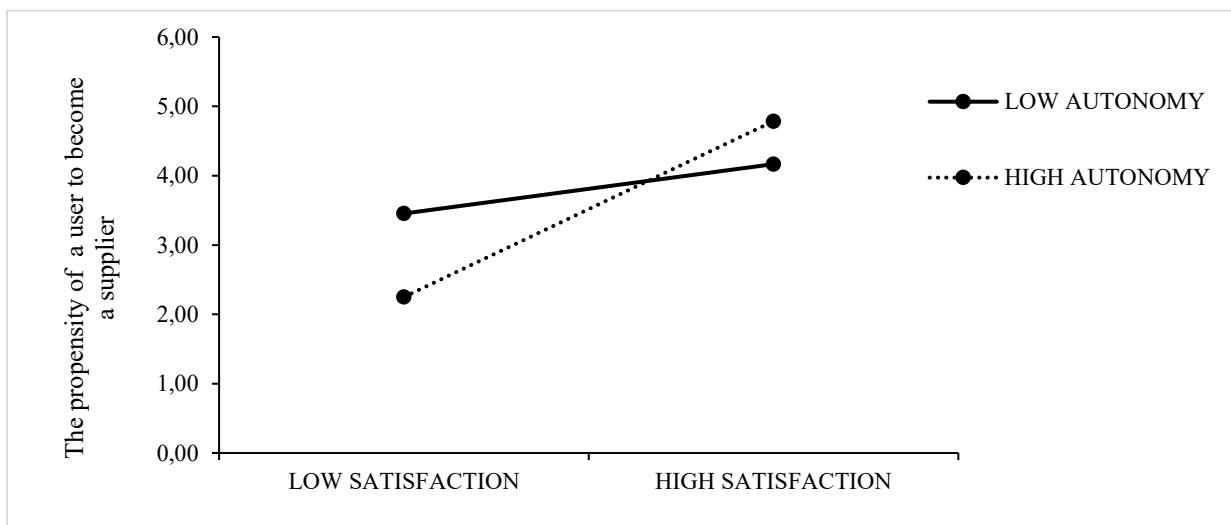
*Description of variables.* The dependent variable is the extent to which participants would agree to become car lenders (Totally disagree 1–2–3–4–5–6–7–8–9 Totally agree). For manipulation checks, participants were asked to what extent they feel constrained in their choice of a car rental from other individuals (Very constrained 1–2–3–4–5–6–7–8–9 Not at all constrained), to what extent they are satisfied with their car rental (Very dissatisfied 1–2–3–4–5–6–7–8–9 Very satisfied) and their perceived capability and abilities to rent a car from another person on the platform (Totally incapable 1–2–3–4–5–6–7–8–9 Totally capable). In addition, control variables (i.e., age, sex, income, education, primary employment status) were included.

## **7.2. Results**

*Manipulation check.* A series of independent samples  $t$ -tests were used to conduct the manipulation check. Respondents under lower autonomy are more likely to feel constrained in their choice of a car rental than those under high autonomy ( $M_{\text{HIGH}} = 6.89$ ,  $SD = 1.518$  vs.  $M_{\text{LOW}} = 3.31$ ,  $SD = 1.402$ ;  $t[108] = -12.713$ ,  $p < 0.001$ ). Respondents under high satisfaction are more

satisfied with the car rental service than those under low satisfaction ( $M_{\text{HIGH}} = 6.96$ ,  $SD = 1.306$  vs  $M_{\text{LOW}} = 3.02$ ,  $SD = 1.384$ ;  $t[108]=15.221$ ,  $p < 0.001$ ). Finally, respondents in the high self-efficacy condition are more likely to think that they have the capability and the abilities to rent a car from another person via the platform than those in the low self-efficacy condition ( $M_{\text{HIGH}} = 7.18$ ,  $SD = 1.366$  vs.  $M_{\text{LOW}} = 3.45$ ,  $SD = 1.179$ ;  $t[108] = -13.352$ ,  $p < 0.001$ ).

*Switchover effect.* A 2 (level of autonomy)  $\times$  2 (level of satisfaction)  $\times$  2 (level of self-efficacy) ANOVA on the propensity to become a car lender revealed only a main effect of satisfaction ( $M_{\text{HIGH}} = 4.351$  vs.  $M_{\text{LOW}} = 2.940$ ;  $F(1, 76) = 5.129$ ,  $p < 0.05$ ), and a two-way interaction between autonomy and satisfaction ( $F(3, 76) = 4.297$ ,  $p < 0.05$ ; see as Figure 3). However, no three-way interaction was found (See Table C4 and Table C9 in supplementary materials). The switchover effect is significantly stronger when satisfaction is complemented by autonomy. In fact, simple planned contrasts revealed that this is the case when the AUTONOMY is at HIGH level ( $M_{\text{HIGH SATISFACTION}} = 4.786$  vs.  $M_{\text{LOW SATISFACTION}} = 2.250$ ;  $F(1, 103) = 8.130$ ,  $p < 0.01$ ), but not when it is at LOW level ( $M_{\text{HIGH SATISFACTION}} = 4.167$  vs.  $M_{\text{LOW SATISFACTION}} = 3.455$ ;  $F(1, 103) = 0.756$ ,  $p > 0.10$ ). Collectively, these results validate H5b and partially support H6 but fail to lend support to H5a and H5c.



**Figure 3.** The propensity to become a supplier by AUTONOMY and SATISFACTION.

### **7.3. Discussion**

Respondents more satisfied with a collaborative exchange scheme are more likely to complete the transition from user to provider. Besides, the switchover effect is significantly stronger when higher satisfaction is complemented by a higher level of autonomy. Interestingly, the absence of effect for self-efficacy suggests that perceived capabilities are not adequate predictors of the switchover, and other variables seem more critical. In addition, CE platforms are conceived to be user-friendly and easy to use to avoid rebuking users with operational or technical complexity, making the necessity for self-efficacy all the less important. The lack of direct effect of autonomy (H5a) and self-efficacy (H5c) could also be explicable by the study design, which interacts the three variables and emphasizes comparatively higher importance of satisfaction, and then autonomy for enacting switchover, while self-efficacy appears somewhat less important. The results also confirm past exploratory findings (Ertz *et al.*, 2021) that did not find self-efficacy either as a switchover enabler or inhibitor.

## **8. Study 4: Socialization**

### **8.1. Methodology**

Study 4 examines the consumer intention to become a provider in the CE by testing socialization variables. To test the hypotheses, we conducted a 2 (PEER INFLUENCE: HIGH vs. LOW)  $\times$  2 (SOCIALIZATION: HIGH vs. LOW)  $\times$  2 (SOCIAL DEBT: HIGH vs. LOW) between-subject experiment.

*Design and participants.* The same procedure as in Study 1, involving both MTurk and Qualtrics, was followed in Study 4. The study involved consumers who have already conducted collaborative practices in the past. A pretest (n = 65) ensured that the study procedure (e.g., filler questions, manipulation check, new scenario) worked well and that the items were understandable.

Since no issue was identified during the pretest, we proceeded with the actual data collection. A total of 192 participants have completed the study, including 39.6% women; 70.9% aged 35 years or less; 76.4% with an annual income lower than \$80,000; 76.8% with a university degree; 79.6% own a car; 60% use their personal car as their main transportation mode; 92.6% hold a driver's license; 91.6% have ever used a taxi service.

*Description of variables.* The dependent variable is the intention of participants to become providers of carsharing services (Very unlikely 1–2–3–4–5–6–7–8–9 Very likely). For the manipulation checks, participants were asked to indicate to what extent they felt that others exerted an influence on their decision to use the carsharing platform (Very small influence 1–2–3–4–5–6–7–8–9 Very big influence), to what extent they find that they experienced social interactions during the commuting (Very little interaction 1–2–3–4–5–6–7–8–9 Very high interaction) and to what extent they feel indebted toward the carsharing web platform and toward the drivers (Not at all indebted 1–2–3–4–5–6–7–8–9 Totally indebted). In addition, some control variables (i.e., age, sex, income, education, and primary employment status) were gathered.

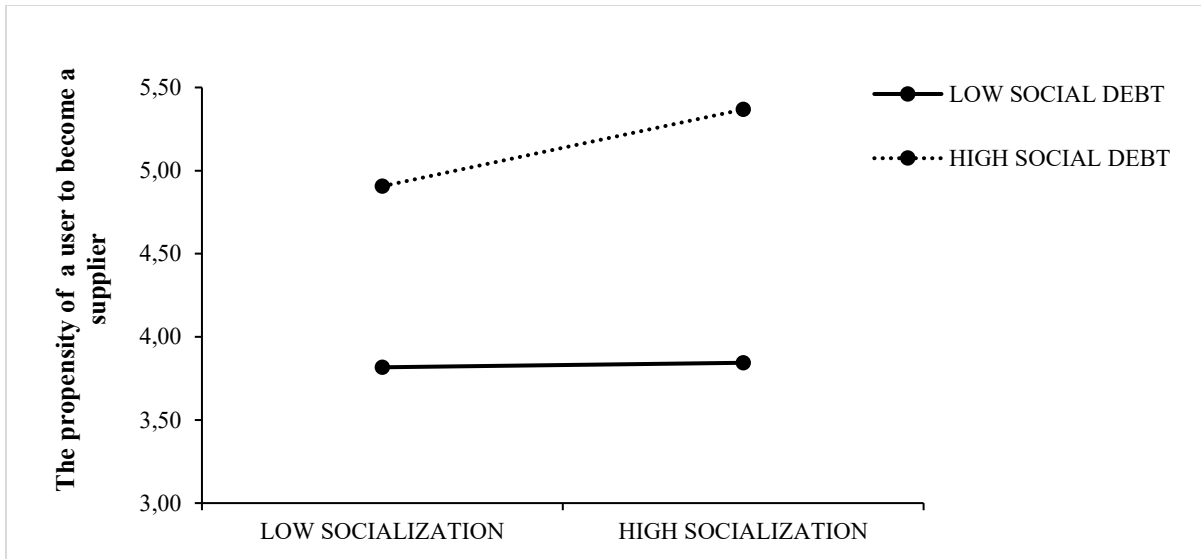
## **8.2. Results and Discussion**

*Manipulation check.* A series of independent-samples *t*-tests showed results in the expected direction for peer influence ( $M_{\text{HIGH}} = 7.08$ ,  $SD = 1.340$  vs.  $M_{\text{LOW}} = 2.87$ ,  $SD = 1.523$ ;  $t [190] = 20.386$ ,  $p < 0.001$ ), socialization ( $M_{\text{HIGH}} = 6.87$ ,  $SD = 1.315$  vs.  $M_{\text{LOW}} = 2.68$ ,  $SD = 1.540$ ;  $t [190] = 20.295$ ,  $p < 0.001$ ), and social debt ( $M_{\text{HIGH}} = 7.10$ ,  $SD = 1.267$  vs.  $M_{\text{LOW}} = 2.50$ ,  $SD = 1.537$ ;  $t [190] = 22.696$ ,  $p < 0.001$ ).

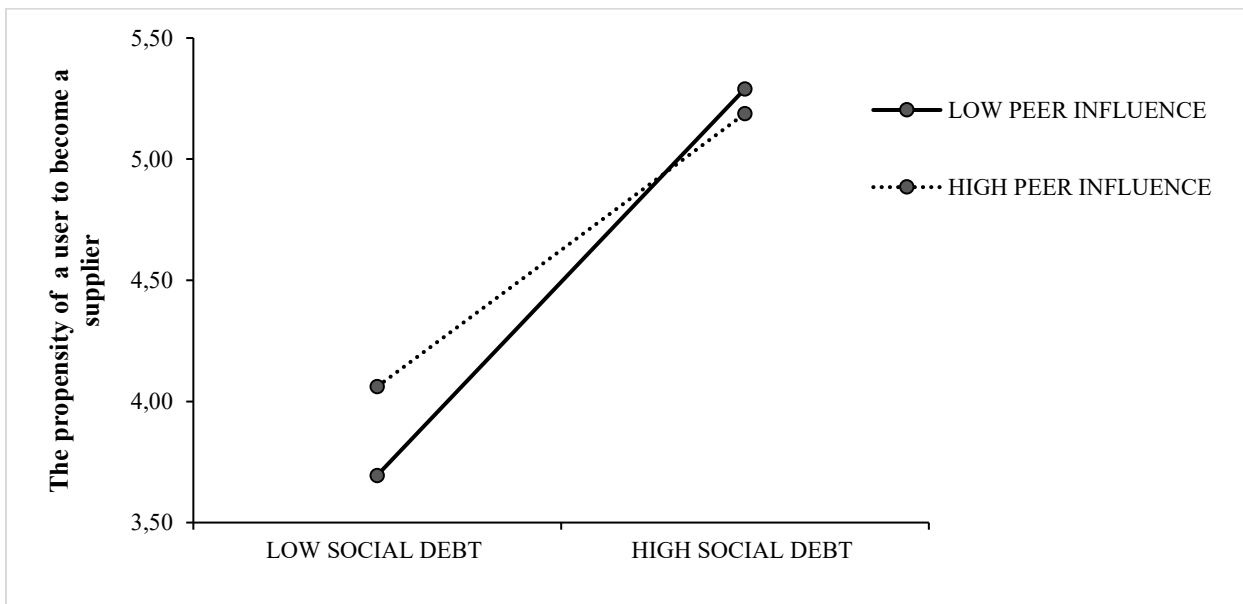
*Switchover effect.* A 2 (peer influence)  $\times$  2 (socialization)  $\times$  2 (social debt) ANOVA revealed a main effect of social debt ( $M_{\text{HIGH}} = 5.48$  vs.  $M_{\text{LOW}} = 4.26$ ;  $F(1, 185) = 17.934$ ,  $p < 0.001$ ), of socialization ( $M_{\text{HIGH}} = 4.880$  vs.  $M_{\text{LOW}} = 4.196$ ;  $F(1, 185) = 4.034$ ,  $p < 0.05$ ), a two-way interaction

effect between social debt and socialization ( $F(1, 185) = 6.240, p < 0.05$ ; see Figure 4), a two-way interaction effect between social debt and peer influence ( $F(1, 185) = 6.128, p < 0.05$ ; see Figure 5), and a two-way interaction effect between peer influence and socialization ( $F(1, 185) = 4.261, p < 0.05$ ; see Figure 6). However, no significant three-way interaction was found (see Table D4 and D11 in supplementary materials).

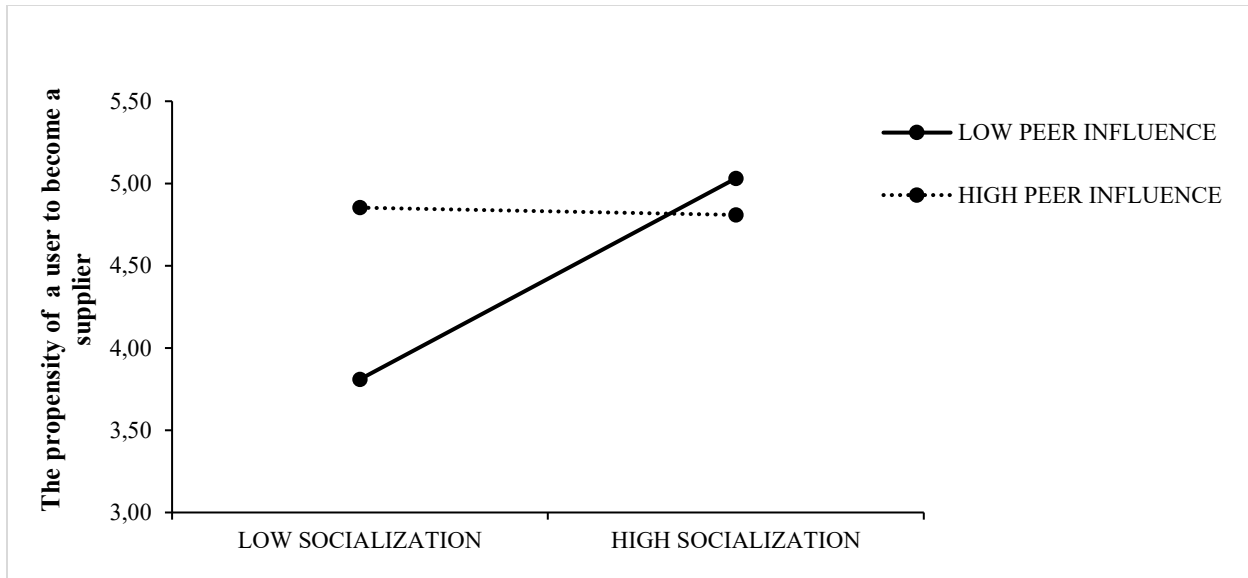
First, the switchover effect is significantly stronger when socialization is complemented by a higher level of social debt. This effect was more prominent under high socialization ( $M_{\text{HIGH SOCIAL DEBT}} = 5.368$  vs.  $M_{\text{LOW SOCIAL DEBT}} = 3.844$ ;  $F(1, 185) = 9.677, p < 0.01$ ) compared to low socialization ( $M_{\text{HIGH SOCIAL DEBT}} = 4.906$  vs.  $M_{\text{LOW SOCIAL DEBT}} = 3.817$ ;  $F(1, 185) = 4.745, p < 0.05$ ). Second, an increase in the level of indebtedness leads to a stronger switchover effect under high peer influence ( $M_{\text{HIGH SOCIAL DEBT}} = 5.188$  vs.  $M_{\text{LOW SOCIAL DEBT}} = 4.061$ ;  $F(1, 185) = 5.429, p < 0.05$ ) and low peer influence ( $M_{\text{HIGH SOCIAL DEBT}} = 5.29$  vs.  $M_{\text{LOW SOCIAL DEBT}} = 3.695$ ;  $F(1, 185) = 9.890, p < 0.01$ ). Third, in the low socialization condition, an increase in peer influence leads to a stronger switchover effect ( $M_{\text{HIGH PEER INFLUENCE}} = 4.853$  vs.  $M_{\text{LOW PEER INFLUENCE}} = 3.81$ ;  $F(1, 185) = 4.242, p < 0.05$ ). Furthermore, in the low peer influence group, the propensity to become a supplier at HIGH SOCIALIZATION is significantly higher than that of the low socialization ( $M_{\text{HIGH SOCIALIZATION}} = 5.031$  vs.  $M_{\text{LOW SOCIALIZATION}} = 3.810$ ;  $F(1, 185) = 5.596, p < 0.05$ ). Collectively, these results lend support to H7b-c and partially to H8 but not to H7a.



**Figure 4.** The propensity to become a supplier by SOCIAL DEBT and SOCIALIZATION.



**Figure 5.** The propensity to become a supplier by PEER INFLUENCE and SOCIAL DEBT.



**Figure 6.** The propensity to become a supplier by PEER INFLUENCE and SOCIALIZATION.

### 8.3. Discussion

The results confirm past findings suggesting that socialization is crucial in spurring switchover (Ertz *et al.*, 2021). Individuals who feel more socially indebted to the collaborative system and perceive more socialization benefits in collaborative exchanges are more likely to switchover. Social indebtedness strengthens the positive effect of socialization on intentions to switchover. Peer influence seems less decisive in its effect since it is mainly through social debt that the difference lies. In fact, switchover intentions remain reasonably similar across both high and low peer influence, albeit strong peer influence is slightly more impactful under low social debt. Finally, a catalytic reaction between peer influence and socialization is observed, such that the impact of socialization is strongest in the low peer influence condition. The lack of direct effect of peer influence (H7a) could also be explicable by the study design, which posits the interaction of three variables and emphasizes the comparatively higher importance of social indebtedness and socialization. In contrast, peer influence appears somewhat less important.

### 9. General Discussion



Past research provided substantial insights into consumer participation, commitment, and engagement induced by brand-produced content (Bao and Wang, 2021; Mostafa, 2021; Dessart and Veloutsou, 2021; Hamzah *et al.*, 2021) and user-generated content (Jonas, 2010; Corrêa *et al.*, 2020; Muda and Hamzah, 2021; Rasool and Pathania, 2021). Social commerce extended the concept of interactivity to the domain of product and service exchanges (Handarkho, 2020). These studies offer a helpful perspective to understand better the role conversion between user and provider as an interactive process. Our findings provide original insights and valuable explanations for the user-to-provider switchover process as an interactive process lying at the heart of the prosumer, thus contributing to the literature on interactive marketing and prosumers. Across four studies on different collaborative exchange types, we present novel evidence that some key behavior characteristics, context, individual and social variables play a significant positive effect in motivating the role transitions of individuals in the CE through a switchover. As to the behavioral characteristics (Study1), we find that consumers who have already used a CE service provided by another consumer using an online platform are more likely to complete the transition from consumer to provider. In addition, consumers who perceive that many people use the CE platforms are more likely to complete the transition from user to provider, especially when they perceive that it is difficult to obtain CE supply, which can further enhance the switchover effect. As to the context variables (Study 2), our results show that promoting solidarity between members of the CE platform may facilitate the transition of participants from users to providers. The switchover effect is significantly stronger when non-commerciality is complemented by a higher level of solidarity. As to intrinsic variables (Study 3), we found that improving user satisfaction may promote the transition of participants from users to providers. In particular, the switchover effect will become significantly stronger when a higher level of satisfaction complements high

autonomy. As to social variables (Study 4), socialization and the indebtedness of users (i.e., social debt) may play a significant role in the transition. Furthermore, the interaction between social debt and socialization, as well as between social debt and peer influence, were significant. Interestingly, the complementary effect of social debt is more prominent under low peer influence, while for socialization, it is more obvious under conditions of high socialization. We also found a certain catalytic reaction between peer influence and socialization. However, only when one is at a low level, the complementary effect of the other is significant.

## **10. Theoretical Implications**

The switchover concept was developed from previous research on the spillover effect (i.e., Ertz *et al.*, 2021). The spillover concept originates from the PEB literature (e.g., Harland *et al.*, 1999; Thøgersen, 1999; Truelove *et al.*, 2014; Van der Werff *et al.*, 2014) and is closely associated with the switchover concept. In fact, spillover refers to an intrinsic mechanism of role transition in the same person, while switchover reflects extrinsic behavior in the enactment of user and provider. Therefore, as emphasized by previous research (Ertz *et al.*, 2021), this extrinsic shift in roles can be explicable by the theoretical nexus of the spillover concept. The latter can thus be applied to the CE to explain the changing role of consumers in collaborative exchanges (i.e., the transition from user to provider), which is a distinctive feature of collaborative practices (Hamari *et al.*, 2016; Ertz *et al.*, 2016, 2019; Nguyen *et al.*, 2020). Some researchers generally spoke of the *interchangeability* of roles and examined how interchangeability influences participants' attitudes and behavior but without explaining the underpinning variables of that interchangeability (Nguyen *et al.*, 2020). Using a robust four-experiment methodology, the current study extends previous qualitative findings on the switchover effect by investigating the contextual, behavioral, and social variables identified inductively by Ertz *et al.* (2021). Besides, in contrast to Ertz *et al.* (2021) and

Nguyen *et al.* (2020), this study draws on the spillover theory from the PEB literature (Van de Werff *et al.*, 2014; Truelove *et al.*, 2014; Corral-Verdugo *et al.*, 2016; Thøgersen, 2004) to explore intrinsic motivations (i.e., individual variables) (Corral-Verdugo *et al.*, 2016) as well as two behavioral variables (difficulty and uniqueness) (Van de Werff *et al.*, 2014; Truelove *et al.*, 2014) to explain intrinsic mechanism of role transition in the same person that manifests externally in switchover of role transition from user to provider.

In sum, this paper narrows down the switchover concept within the CE into a specific situation: the user to provider switch. Furthermore, it tests it comprehensively using four sets of variables and empirically using four experimental designs.

The variables that enable the switchover process also fit squarely with those underpinning interactive marketing. First, the results suggest that switching over entails behavioral variables, and, likewise, past research in interactive marketing provided substantial insights into consumers' behavioral shifts through enhanced participation given interactivity (Bao and Wang, 2021). Furthermore, the switchover is also connected to individual variables, such as with interactive marketing through enhanced commitment and engagement (Vazquez, 2020; Bao and Wang, 2021). While switchover is further reliant on contextual variables to start, so is interactive marketing, especially through a series of technological, commercial, and social innovations enabling brand-produced content (e.g., Bao and Wang, 2021) or user-generated content (e.g., Muda and Hamzah, 2021). As for socialization, while it is specific to switchover in the collaborative economy, it is also manifested in interactive marketing, such as through person-to-person communication or social commerce (e.g., Handarkho, 2020), for example.

The sharing economy nexus overlaps partially with many other related concepts such as collaborative economy, collaborative consumption, secondhand exchanges, or alternative

exchange systems. The latter flourished in the 2010s and continues to do so by extending the concept of interactivity to the domain of product and service exchanges (Handarkho, 2020) and fostering the two-sided consumer (Park and Armstrong, 2019; Ek Styvén and Mariani, 2020) or prosumer. Therefore, drawing on the interactive marketing perspective, another main contribution of the research is to have broadened the concept of the switchover effect, primarily developed in the CE literature by Ertz *et al.* (2021), as an interactive process and to have tested it empirically.

By positing the switchover as an interactive process – connecting the CE/switchover literature to the interactive marketing one-, this research differs from previous studies by its use of an experimental model to understand and measure the impacts of socialization, individual, behavioral and contextual variables on consumers' interaction between a user and a provider role. Existing studies on the motivations of providers and users in the CE consider motivating factors and barriers among consumers who perform collaborative behaviors and examine which of these factors leads or prevents consumers from being obtainers/users or providers (e.g., Ertz *et al.*, 2018; Hawlitschek *et al.*, 2018; Torrent-Sellens *et al.*, 2020). However, no studies have tested behavioral, contextual, individual, or socialization variables to quantitatively assess consumers' user-to-provider transition as an interactive process. The present study provides original insights into the behavior of consumers who participate in the CE by providing new results tested on consumers.

## **11. Practical Implications**

The success and development of collaborative platforms depend heavily on the system's ability to attract providers (Chu and Manchanda, 2016). Given that there are usually more users than providers, one way to reach this objective is to understand what leads users to become providers.

According to the findings, when users perceive that many people perform the behavior, they are more likely to become providers. Based on *herd behavior* or *group effect* concepts (e.g., Hamari

*et al.*, 2016), managers may emphasize and communicate the popularity of the collaborative exchange scheme by providing figures, charts, graphs, or other visuals. This should be done regardless of the behavior's perceived difficulty because although the easiness of the behaviour will increase users' propensity to switchover, managers should not presume that ease of the behavior alone will lead more users to become providers.

Likewise, managers should cultivate solidarity between platform members. In fact, solidarity rather than competitiveness is both directly and indirectly responsible for hikes in intentions to switchover. Although non-commercial settings may have an advantage if they offer a solidarity environment, commercial platforms are not completely disadvantaged, provided they emphasize solidarity between members. More precisely, even if the platform has a strong commercial orientation, when users feel that they are in a context permeated by solidarity, they will be more likely to become providers. For example, managers may promote collaboration and altruism by using scores, badges, or points (gamification) when users provide tips or help each other (e.g., answer questions in a forum or discussion threads or write entries in a tip blog). Another way to promote solidarity could be through weaving human ties and interactions with initiatives such as curating online discourse between members, humanizing online discussions with face-to-face interactions, or organizing diverse festivities and activities.

Given that satisfaction really seems at the root cause of switchover intentions in comparison to the other intrinsic motives (i.e., autonomy, self-efficacy), managers need to pay particular attention to maintaining high levels of satisfaction among users because this will be the primary driver to switchover even if users feel lower self-efficacy and lower levels of autonomy. In other words, focusing on empowerment by means of increasing the perceived level of self-efficacy and levels of autonomy of users, as has been done by several platforms or observers (e.g.,

PermissionLess Innovation, 2017), may not be rewarding in terms of switchover intentions. Instead, using the philosophy underpinning the service quality gap theory (Johns and Tyas, 1996), managers rather need to focus on exceeding users' expectations by making their platform more effective, adding features that ease users' tasks (e.g., recommender systems, advice, live chat service), or offering premium content (e.g., exclusive articles, posts, videos, infographics).

Finally, it is noteworthy to mention that peer influence alone is not a decisive predictor of switchover. Instead, users need to feel some level of social indebtedness and socialization (i.e., opportunities to interact socially) inherent to the CE scheme to undergo switchover. Previous recommendations pertaining to the weaving of social ties and interactions to promote solidarity could be a way to spur socialization. More generally, providing opportunities to interact digitally (e.g., forums, social networks) and non-digitally (e.g., physical events) will be conducive to socialization. Social indebtedness stands out as an even more crucial factor. Managers may emphasize services others have provided to users to instill a sense of social indebtedness. Reminders need to be subtle enough to avoid the pitfalls of excessive reminding, which could be perceived as a form of condemnation (shaming), resulting in counterproductive effects. Direct reminders could include keeping the history of service usage in the online profile of users but also messages reminding that an actual service usage took place with (a) specific provider(s) called by their name(s) and with a link or button to start doing the same. The process needs to be smooth and seamless to facilitate switchover. If the platform is social and enables one to distinguish between closer social circles of the user, other indirect means could be asking users to validate whether providers they know or with whom they have already interacted have provided a service to others.

From an interactive marketing perspective, those suggestions can also improve interactivity

through brand-produced content and spur social commerce. First, when users perceive that many individuals interact with brand-produced content and perform social commerce, they will be more likely to do it. Second, solidarity should be nurtured by brands and social commerce platforms, such as by encouraging users to answer other users' or even the brand's queries. Third, maintaining consumers satisfied with the brand-produced content, opportunities to interact in addition to that, and social commerce interactions are crucial and could be improved with surveys and corrective actions. Finally, making users feel indebted either to the brand or to other users with whom they exchange through social commerce can spur the socialization levels needed to increase interactivity through brand-produced content and social commerce.

## **12. Limitations and Avenues for Future Research**

The research is subject to several limitations. It is culturally limited to North America, whereas the results might differ in other socio-cultural contexts, especially those where religious norms permeate society and could potentially hinder or foster certain collaborative practices. Second, the perceived difficulty construct is conceptualized and operationalized as the perception of the initial behavior, not the other behavior (Truelove *et al.*, 2014, p. 134). Yet, it can be reasonably posited that perceptions of the initial behavior conflate with those of the other behavior. Future research might investigate switchover effects using such a nuanced understanding of the perceived difficulty concept. Third, the study didn't empirically test specific effects by comparing digital and non-digital platforms but adopted digital platforms as the experimental conditions. Although platforms have become increasingly predominant in the CE and have appeared as key growth vectors (Ertz and Boily, 2019, 2020), non-digital CE schemes remain substantial. Thus, future research must delve deeper into the differences in switchover processes by comparing digital and non-digital CE systems. Fifth, with the use of technology (e.g., blockchain, smart contract,

artificial intelligence), collaborative platforms are subject to transformations in terms of governance, transaction costs, and user confidence (Ertz and Boily, 2019) and could potentially improve management decision-making by increasing the amount of customer data (Ghilal and Nach, 2019). It would then be appropriate to examine the impact of these improvements on platform management and user experience. Sixth, although a better assessor of causality, the experimental methodology adopted in this study also poses generalization problems. This ties back to the use of specific CE systems, which may lack commonality in their features (e.g., pricing, channel, property, intermediary [Ertz *et al.*, 2019]), and hence, the results obtained in one CE system may not generalize to (all) others. Therefore, additional research could further investigate switchover effects by focusing on a single CE system or comparing several. A broader range of methods, including mixed methodology, might be used to this end. Seventh and related to the previous point, although experiments provide better evidence of causality, interaction, and decreased common method bias or multicollinearity issues, the design fails to provide a comprehensive framework to identify which variable affects the most (least) switchover intentions. Future research might adopt cross-sectional surveys or longitudinal designs to compare the effect of the studied variables and potentially include others.

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## Appendix 1. Summary of Study Condition and Findings

Study	Sample Size	Design	Scene descriptions	Scenario	Findings
1	207 (MTurk platform)	2 (perceived difficulty of the behavior [LEVEL]: EASE vs. DIFFICULTY) × 2 (perception of the number of people realizing the behavior [NUMBER]: FEW vs. MANY) × 3 (past behavioral achievement [FREQUENCY]: none, only one, two or more)	<p><b>LEVEL</b></p> <ul style="list-style-type: none"> <li>● EASE: It is very easy for you to find a home that suits you, and you make the reservation quite easily.</li> <li>● DIFFICULTY: You find it difficult to find a home that suits you, and it is difficult for you to make a reservation.</li> </ul> <p><b>NUMBER</b></p> <ul style="list-style-type: none"> <li>● FEW: According to the media and the information that you have gleaned on the Internet, very few people resort to collaborative housing, and you realize by yourself that the number of users is very low.</li> <li>● MANY: According to the media and the information that you have gleaned on the Internet, many people are using collaborative housing, and you realize by yourself that the number of users is very high.</li> </ul> <p><b>FREQUENCY</b></p> <ul style="list-style-type: none"> <li>● How often have you used an accommodation service directly provided by another consumer using an online platform (none, only one, two or more)?</li> </ul>	<p>You are a student and you need a place to stay when visiting another city. Having access to the Internet, you decide to do a search on a collaborative housing platform. [EASE: It is very easy for you to find a home that suits you and you make the reservation quite easily. DIFFICULTY: You find it difficult to find a home that suits you and it is difficult for you to make the reservation]. Collaborative housing seems like an interesting option because you will have access to the entire home of an individual for a modest price. [FEW: However, according to the media, and according to information that you have gleaned on the Internet, very few people resort to collaborative housing, and you realize by yourself that the number of users is very low. MANY: Besides, according to the media and according to the information that you have gleaned on the Internet, many people are using collaborative housing, and you realize by yourself that the number of users is very high]. You try again the experience by booking accommodation on the platform for other stays.</p>	<p><b>NUMBER → DV</b> (<math>M_{MANY} = 3.95</math> vs. <math>M_{FEW} = 3.08</math>; (<math>F(1, 197) = 7.464</math>, <math>p &lt; 0.01</math>))</p> <p><b>LEVEL*NUMBER → DV</b> ((<math>F(1, 197) = 4.789</math>, <math>p &lt; 0.05</math>))</p>

2	61 (MTurk platform)	2 (NON_COMMERCIALITY: HIGH vs. LOW) × 2 (SOLIDARITY: HIGH vs. LOW)	<p><b>NON_COMMERCIALITY</b></p> <ul style="list-style-type: none"> <li>●LOW: Obtain a new phone; reception and donation; find a donor who is willing to give away a phone that still works well; product donation and swapping events</li> <li>●HIGH: Purchase a new phone at an affordable price; purchase and reselling; find a seller who sells you a phone at a good price; flea markets and auctions</li> </ul> <p><b>SOLIDARITY</b></p> <ul style="list-style-type: none"> <li>●LOW: Competition; the surpassing of oneself; encouraging comparison and rewarding; classification system that ranks members in relation to each other; competition with others and surpassing them in terms of performance in the exchange of secondhand objects; diverse challenges and contests; improving their score, their ranking and their positioning in the platform hierarchy.</li> <li>●HIGH: Collaboration; cooperation between members; the weaving of social ties and altruism; public forum of discussion and support; discuss and exchange tips and advice related to the secondhand marketplace with others and to help them; diverse festivities and activities; humanize online discussions with face-to-face interactions.</li> </ul>	<p>You want to [COMMERCIAL: purchase a new phone at an affordable price; NON-COMMERCIAL: obtain a new phone]. A friend tells you about Sharegood, on online platform for secondhand products [Commercial: purchase and reselling; Non-commercial: reception and donation]. You search for a phone and [COMMERCIAL: find a seller who sells you a phone at a good price; NON-COMMERCIAL: find a donor who is willing to give away a phone that still works well]. During the process, you notice that the platform uses several mechanisms to engage with its users. To stimulate users' engagement, the platform seeks to promote [LOW SOLIDARITY: competition; HIGH SOLIDARITY: collaboration]. Therefore, the platform promotes [LOW SOLIDARITY: the surpassing of oneself; HIGH SOLIDARITY: cooperation between members] and developed a system in order to encourage [LOW SOLIDARITY: encourage comparison and rewarding; HIGH SOLIDARITY: the weaving of social ties and altruism] between members. More specifically, the platform implemented a [LOW SOLIDARITY: classification system that ranks members in relation to each other; HIGH SOLIDARITY: public forum of discussion and support]. This system enables members to [LOW</p>	<p><b>SOLIDARITY → DV</b> (<math>M_{HIGH} = 7.010</math> vs. <math>M_{LOW} = 4.093</math>; <math>F(1, 57) = 15.218, p &lt; 0.01</math>)</p> <p><b>NON_COMMERCIALITY * SOLIDARITY → DV</b> (<math>F(1, 57) = 4.918, p &lt; 0.05</math>)</p>
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SOLIDARITY: compete with others and surpass them in terms of performance in exchanging secondhand objects; HIGH SOLIDARITY: discuss and exchange tips and advice related to the secondhand marketplace with others and to help them]. Finally, the platform regularly organizes [COMMERCIAL: flea markets and auctions; NON-COMMERCIAL: product donation and swapping events] between members from close regions and cities. These events entail [LOW SOLIDARITY: diverse challenges and contests; HIGH SOLIDARITY: diverse festivities and activities]. These initiatives enable members to [LOW SOLIDARITY: improve their score, their ranking and their positioning in the platform hierarchy; HIGH SOLIDARITY: humanize online discussions with face-to-face interactions].

3	110 (MTurk platform)	2 (AUTONOMY: HIGH vs. LOW) × 2 (SATISFACTION: HIGH vs. LOW) × 2 (SELF_EFFICACY: HIGH vs. LOW)	<p><b>AUTONOMY</b></p> <ul style="list-style-type: none"> <li>● LOW: Given your student status (e.g., limited budget, high insurance costs), owning a car is not an option for you, and you decide</li> <li>● HIGH: You have no specific constraints (e.g., time, finances), and you are free to choose whatever option you want and you decide</li> </ul> <p><b>SATISFACTION</b></p> <ul style="list-style-type: none"> <li>● LOW: However, the rental does not go well at all, and you are disappointed.</li> </ul>	<p>You are a student and you need a car. [LOW AUTONOMY: Given your student status (e.g., limited budget, high insurance costs), owning a car is not an option for you and you decide; HIGH AUTONOMY: You have no specific constraints (e.g., time, finances) and you are free to choose whatever option you want so you decide] to rent a car from another person. You decide to go on a web platform named Jidengo that</p>	<p><b>SATISFACTION → DV</b> (<math>M_{HIGH} = 4.351</math> vs. <math>M_{LOW} = 2.940</math>; <math>F(1, 103) = 6.717</math>, <math>p &lt; 0.05</math>)</p> <p><b>AUTONOMY* SATISFACTION → DV</b> (<math>(F(1, 103) = 4.297, p &lt; 0.05)</math>)</p>
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			<ul style="list-style-type: none"> <li>● HIGH: Afterwards, the rental goes very well, and you are happy.</li> </ul> <p><b>SELF-EFFICACY</b></p> <ul style="list-style-type: none"> <li>● LOW: Yet, despite your efforts, you are not able to master the rental process, so you feel that you do not have the capability and abilities.</li> <li>● HIGH: With time, and thanks to your efforts, you are able to master the rental process so that you feel that you have the capability and the abilities.</li> </ul>	<p>specializes in consumer-to-consumer product rental. After browsing several announcements, you pick one of them. You go visit the owner of the car, to negotiate the price of the rental and agree upon a rental contract. [LOW SATISFACTION: However, the rental does not go well at all, and you are disappointed; HIGH SATISFACTION: Afterwards, the rental goes very well and you are happy] with this first experience. After a while, you try to rent other products from other individuals. [LOW SELF-EFFICACY: Yet, despite your efforts, you are not able to master the rental process, so you feel that you do not have the capability and abilities; HIGH SELF-EFFICACY: With time, and thanks to your efforts, you are able to master the rental process, so that you feel that you have the capability and the abilities] to find good bargains and deals on this platform or on other consumer-to-consumer rental platforms.</p>	
4	192 (MTurk platform)	<p>2 (PEER INFLUENCE: HIGH vs. LOW) ×</p> <p>2 (SOCIALIZATION: HIGH vs. LOW) ×</p> <p>2 (SOCIAL DEBT: HIGH vs. LOW)</p>	<p><b>PEER INFLUENCE</b></p> <ul style="list-style-type: none"> <li>● LOW: For your transportation needs, you search, and you find, by yourself.</li> <li>● HIGH: For your transportation needs, your family, friends, and relatives strongly advise you to use a carsharing service on a consumer-to-consumer carsharing web platform. Afterwards, you start using the service.</li> </ul> <p><b>SOCIALIZATION</b></p>	<p>You are a student and your campus is located in a city that is about two hours away from your parents' home. You live on the campus but every week-end you visit your parents. [LOW PEER INFLUENCE: For your transportation needs, you search and you find, by yourself; HIGH PEER INFLUENCE: For your transportation needs, your family, friends and</p>	<p><b>SOCIAL DEBT → DV</b> (M<sub>HIGH</sub> = 5.48 vs. M<sub>LOW</sub> = 4.26; F (1, 185) = 17.934, p&lt;0.001)</p> <p><b>SOCIALIZATION → DV</b> (M<sub>HIGH</sub> = 4.880 vs. M<sub>LOW</sub> = 4.196; F (1, 185) = 4.034, p&lt;0.05)</p>

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<ul style="list-style-type: none"> <li>● LOW: You do not have lots of opportunities to talk to other passengers or to the driver, and the platform does not enable you to keep in touch with them;</li> <li>● HIGH: You have lots of opportunities to talk to other passengers or to the driver, and the platform enables you to keep in touch with them.</li> </ul> <p><b>SOCIAL DEBT</b></p> <ul style="list-style-type: none"> <li>● LOW: To you, this service is like any other service, and you do not feel especially indebted to the platform or to the drivers;</li> <li>● HIGH: To you, this service is remarkable, and you feel very indebted to the platform and to the drivers.</li> </ul>	<p>relatives strongly advise you to use] a carsharing service on a consumer-to-consumer carsharing web platform. Afterwards, you start using the service. During the commutes, [LOW SOCIALIZATION: you do not have lots of opportunities to talk to other passengers or to the driver, and the platform does not enable you to keep in touch with them; HIGH SOCIALIZATION: you have lots of opportunities to talk to other passengers or to the driver, and the platform enables you to keep in touch with them]. [LOW SOCIAL DEBT: To you, this service is like any other service, and you do not feel specially indebted to the platform or to the drivers; HIGH SOCIAL DEBT: To you, this service is remarkable, and you feel very indebted to the platform and to the drivers] for this service.</p>	<p><b>SOCIAL DEBT *</b>  <b>SOCIALIZATION → DV</b>  (F (1, 185) = 6.240, p&lt;0.05)</p> <p><b>PEER INFLUENCE *</b>  <b>SOCIAL DEBT → DV</b>  (F (1, 185) = 6.128, p&lt;0.05)</p> <p><b>PEER INFLUENCE *</b>  <b>SOCIALIZATION → DV</b>  (F (1, 185) = 4.061, p&lt;0.05)</p>
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## Supplementary materials

### A -Study 1 Behavioral Characteristics

Table A1. Sample distribution

Variable	Type	Number of samples	Proportion
Sex	MALE	101	51.27%
	FEMALE	96	48.73%
	Sum	197	100.00%
Age	18-25	22	11.17%
	26-35	80	40.61%
	36-45	58	29.44%
	46-55	28	14.21%
	56 and over	9	4.57%
	Sum	197	100.00%
Education	Less than a high school diploma	1	0.51%
	High school degree or equivalent (e.g., GED)	20	10.15%
	Some college, no degree	46	23.35%
	Bachelor's degree (e.g., B.A., B.Sc.)	97	49.24%
	Master's degree (e.g., M.A., M.Sc., M.B.A.)	26	13.20%
	Professional degree (e.g., MD, LLD, DVM)	5	2.54%
	Doctorate (e.g., Ph.D., Ed.D.)	2	1.02%
	Sum	197	100.00%
Income	Less than \$20,000	23	11.68%
	\$20,000 to \$49,000	61	30.96%
	\$50,000 to \$79,000	58	29.44%
	\$80,000 to \$99,000	25	12.69%
	\$100,000 to \$149,000	21	10.66%
	\$150,000 or more	9	4.57%
	Sum	197	100.00%
Main employment status	Full-time employment	132	67.01%
	Part-time employment	15	7.61%
	Unemployed	10	5.08%

	Self-employed	19	9.64%
	Home-maker	6	3.05%
	Student	11	5.58%
	Retired	3	1.52%
	Other	1	0.51%
	Sum	197	100.00%

Table A2 Descriptive Statistics

Variable		Sample size
FREQUENCY	None	27
	1	68
	2 and over	112
LEVEL	EASE	121
	DIFFICULTY	86
NUMBER	FEW	101
	MANY	106

Table A3 Descriptive Statistics-ANOVA

Dependent Variable: DVSI			Mean	Std. Deviation	N
FREQUENCY: None	EASE	FEW	4.27	1.009	11
		MANY	4.67	3.011	6
		Total	4.41	1.873	17
	DIFFICULTY	FEW	5.00	1.414	4
		MANY	6.50	0.837	6
		Total	5.90	1.287	10
	Total	FEW	4.47	1.125	15
		MANY	5.58	2.314	12
		Total	4.96	1.808	27
FREQUENCY :1	EASE	FEW	2.93	2.251	15
		MANY	3.33	2.708	21
		Total	3.17	2.501	36
	DIFFICULTY	FEW	2.81	1.601	21
		MANY	4.45	2.382	11
		Total	3.38	2.028	32



	Total	FEW	2.86	1.869	36
		MANY	3.72	2.618	32
		Total	3.26	2.277	68
FREQUENCY :2 and over	EASE	FEW	3.30	2.179	20
		MANY	3.67	1.928	48
		Total	3.56	1.995	68
	DIFFICULTY	FEW	2.50	1.635	30
		MANY	4.07	2.056	14
		Total	3.00	1.905	44
	Total	FEW	2.82	1.892	50
		MANY	3.76	1.948	62
		Total	3.34	1.971	112
Total	EASE	FEW	3.41	2.017	46
		MANY	3.65	2.251	75
		Total	3.56	2.160	121
	DIFFICULTY	FEW	2.80	1.704	55
		MANY	4.68	2.166	31
		Total	3.48	2.079	86
	Total	FEW	3.08	1.869	101
		MANY	3.95	2.265	106
		Total	3.53	2.122	207

Table A4. Tests of Between-Subjects Effects

Dependent Variable: DVS1	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	238.479 <sup>a</sup>	38	6.276	1.520	.040
Intercept	64.423	1	64.423	15.602	.000
<b>FREQUENCY</b>	<b>44.874</b>	<b>2</b>	<b>22.437</b>	<b>5.434</b>	<b>.005</b>
LEVEL	3.813	1	3.813	.924	.338
<b>NUMBER</b>	<b>30.820</b>	<b>1</b>	<b>30.820</b>	<b>7.464</b>	<b>.007</b>
Age	5.215	1	5.215	1.263	.263
Sex	12.054	4	3.014	.730	.573
Income	31.048	6	5.175	1.253	.282
Education	9.217	5	1.843	.446	.815
Main employment status	11.841	7	1.692	.410	.895
FREQUENCY * LEVEL * NUMBER	.481	2	.241	.058	.943
FREQUENCY * LEVEL	8.330	2	4.165	1.009	.367
<b>LEVEL * NUMBER</b>	20.148	1	20.148	4.879	<b>.029</b>
FREQUENCY * NUMBER	.162	2	.081	.020	.981
Error	652.405	158	4.129		
Total	3364.000	197			
Corrected Total	890.883	196			

## B -Study 2 Context

Table B1. Sample distribution

Variable	Type	Number of samples	Proportion
Sex	MALE	18	45.00%
	FEMALE	22	55.00%
	Sum	40	100.00%
Age	18-25	6	15.00%
	26-35	18	45.00%
	36-45	8	20.00%
	46-55	4	10.00%
	56 and over	4	10.00%
	Sum	40	100.00%
Education	Less than a high school diploma	1	2.50%
	High school degree or equivalent (e.g., GED)	6	15.00%
	Some college, no degree	12	30.00%
	Bachelor's degree (e.g., B.A., B.Sc.)	14	35.00%
	Master's degree (e.g., M.A., M.Sc., M.B.A.)	7	17.50%
	Professional degree (e.g., MD, LLD, DVM)	0	0.00%
	Doctorate (e.g., Ph.D., Ed.D.)	0	0.00%
	Sum	40	100.00%
Income	Less than \$20,000	10	25.00%
	\$20,000 to \$49,000	12	30.00%
	\$50,000 to \$79,000	11	27.50%
	\$80,000 to \$99,000	5	12.50%
	\$100,000 to \$149,000	1	2.50%
	\$150,000 or more	1	2.50%
	Sum	40	100.00%
Main employment status	Full-time employment	16	40.00%
	Part-time employment	6	15.00%
	Unemployed	11	27.50%
	Self-employed	5	12.50%
	Home-maker	1	2.50%
	Student	1	2.50%

	Retired	0	0.00%
	Other	0	0.00%
	Sum	40	100.00%

Table B2 Descriptive Statistics

	Value Label	N
SOLIDARITY	LOW	21
	HIGH	23
NON_COMMERCIALITY	LOW_COMMERCIAL	13
	HIGH_NON_COMMERCIAL	31

Table B3 Descriptive Statistics-ANOVA

Dependent Variable: DVS2

Level of solidarity		Mean	Std. Deviation	N
LOW	LOW_COMMERCIAL	3.80	1.874	10
	HIGH_NON_COMMERCIAL	4.18	2.359	11
	Total	4.00	2.098	21
HIGH	LOW_COMMERCIAL	6.33	2.309	3
	HIGH_NON_COMMERCIAL	6.30	1.809	20
	Total	6.30	1.820	23
Total	LOW_COMMERCIAL	4.38	2.181	13
	HIGH_NON_COMMERCIAL	5.55	2.234	31
	Total	5.20	2.258	44

Table B4 Tests of Between-Subjects Effects

Dependent Variable: DVS2	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	150.310 <sup>a</sup>	22	6.832	1.774	.116
Intercept	95.542	1	95.542	24.811	.000
<b>SOLIDARITY</b>	<b>29.344</b>	<b>1</b>	<b>29.344</b>	<b>7.620</b>	<b>.013</b>
NON_COMMERCIALITY	.007	1	.007	.002	.966

SOLIDARITY * NON_COMMERCIALITY	3.128	1	3.128	.812	.380
Age	8.033	1	8.033	2.086	.167
Sex	24.197	4	6.049	1.571	.227
Income	12.400	4	3.100	.805	.539
Education	16.699	5	3.340	.867	.523
Main employment status	13.121	5	2.624	.681	.644
Error	65.465	17	3.851		
Total	1287.000	40			
Corrected Total	215.775	39			

## Two-way interaction

**Table B5 Tests of Between-Subjects Effects**

Dependent Variable: DVS2	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	59.056 <sup>a</sup>	3	19.685	4.918	.005
Intercept	740.079	1	740.079	184.901	.000
NON_COMMERCIALITY * SOLIDARITY	59.056	3	19.685	4.918	.005
Error	160.103	40	4.003		
Total	1411.000	44			
Corrected Total	219.159	43			

## C- Study 3: Individual variables

**Table C1. Sample distribution**

Variable	Type	Number of samples	Proportion
Sex	MALE	44	55.00%
	FEMALE	36	45.00%
	Sum	80	100.00%
Age	18-25	10	12.50%
	26-35	33	41.25%
	36-45	22	27.50%
	46-55	11	13.75%
	56 and over	4	5.00%
	Sum	80	100.00%

Education	Less than a high school diploma	1	1.25%
	High school degree or equivalent (e.g., GED)	5	6.25%
	Some college, no degree	17	21.25%
	Bachelor's degree (e.g., B.A., B.Sc.)	44	55.00%
	Master's degree (e.g., M.A., M.Sc., M.B.A.)	12	15.00%
	Professional degree (e.g., MD, LLD, DVM)	1	1.25%
	Doctorate (e.g., Ph.D., Ed.D.)	0	0.00%
	Sum	80	100.00%
Income	Less than \$20,000	9	11.25%
	\$20,000 to \$49,000	25	31.25%
	\$50,000 to \$79,000	24	30.00%
	\$80,000 to \$99,000	11	13.75%
	\$100,000 to \$149,000	11	13.75%
	\$150,000 or more	0	0.00%
	Sum	80	100.00%
Main employment status?	Full-time employment	50	62.50%
	Part-time employment	9	11.25%
	Unemployed	3	3.75%
	Self-employed	9	11.25%
	Home-maker	3	3.75%
	Student	2	2.50%
	Retired	3	3.75%
	Other	1	1.25%
	Sum	80	100.00%

Table C2 Descriptive Statistics

Factors	Level	N
AUTONOMY	LOW	40
	HIGH	40
SATISFACTION	LOW	34
	HIGH	46
SELF_EFFICACY	LOW	23
	HIGH	57

Table C3 Descriptive Statistics-ANOVA

AUTONOMY	SATISFACTION	SELF EFFICACY	Mean	Std. Deviation	N
LOW	LOW	LOW	3.08	2.746	12
		HIGH	3.90	2.283	10
		Total	3.45	2.521	22
	HIGH	LOW	3.83	2.639	6
		HIGH	4.33	2.535	12
		Total	4.17	2.503	18
	Total	LOW	3.33	2.657	18
		HIGH	4.14	2.376	22
		Total	3.78	2.506	40
HIGH	LOW	LOW	2.33	1.155	3
		HIGH	2.22	2.438	9
		Total	2.25	2.137	12
	HIGH	LOW	3.00	2.828	2
		HIGH	4.92	2.827	26
		Total	4.79	2.820	28
	Total	LOW	2.60	1.673	5
		HIGH	4.23	2.951	35
		Total	4.03	2.860	40
Total	LOW	LOW	2.93	2.492	15
		HIGH	3.11	2.447	19
		Total	3.03	2.431	34
	HIGH	LOW	3.63	2.504	8
		HIGH	4.74	2.718	38
		Total	4.54	2.689	46
	Total	LOW	3.17	2.462	23
		HIGH	4.19	2.722	57
		Total	3.90	2.675	80

Table C4 ANOVA-Tests of Between-Subjects Effects

Dependent Variable: DVS3	Type III Sum of	df	Mean Square	F	Sig.
Corrected Model	259.141 <sup>a</sup>	34	7.622	1.121	.356
Intercept	60.519	1	60.519	8.898	.005
AUTONOMY	.087	1	.087	.013	.911
SATISFACTION	10.780	1	10.780	1.585	.215
SELF_EFFICACY	4.294	1	4.294	.631	.431
Age	.033	1	.033	.005	.945
Sex	26.845	4	6.711	.987	.424

Income	29.622	4	7.405	1.089	.373
Education	43.921	4	10.980	1.614	.187
Main employment status	61.697	6	10.283	1.512	.196
AUTONOMY * SATISFACTION * SELF_EFFICACY	.344	1	.344	.051	.823
AUTONOMY * SATISFACTION	.027	1	.027	.004	.950
AUTONOMY * SELF_EFFICACY	1.723	1	1.723	.253	.617
SATISFACTION * SELF_EFFICACY	.153	1	.153	.023	.881
Error	306.059	45	6.801		
Total	1782.000	80			
Corrected Total	565.200	79			

Main effect

**Table C5 Tests of Between-Subjects Effects**

Dependent Variable: DVS3	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	51.819 <sup>a</sup>	3	17.273	2.557	.061
Intercept	846.974	1	846.974	125.384	.000
AUTONOMY	1.849	1	1.849	.274	.602
<b>SATISFACTION</b>	<b>34.649</b>	<b>1</b>	<b>34.649</b>	<b>5.129</b>	<b>.026</b>
SELF_EFFICACY	6.649	1	6.649	.984	.324
Error	513.381	76	6.755		
Total	1782.000	80			
Corrected Total	565.200	79			

TWO-WAY interaction

**Table C6 Tests of Between-Subjects Effects**

Dependent Variable: DVS3	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	60.281 <sup>a</sup>	3	20.094	3.024	.035
Intercept	976.223	1	976.223	146.940	.000
<b>SATISFACTION * AUTONOMY</b>	60.281	3	20.094	3.024	.035
Error	504.919	76	6.644		
Total	1782.000	80			
Corrected Total	565.200	79			

Table C7 Tests of Between-Subjects Effects

Dependent Variable: DVS3	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	19.238 <sup>a</sup>	3	6.413	.893	.449
Intercept	620.303	1	620.303	86.349	.000
SELF_EFFICACY * AUTONOMY	19.238	3	6.413	.893	.449
Error	545.962	76	7.184		
Total	1782.000	80			
Corrected Total	565.200	79			

Table C8 Tests of Between-Subjects Effects

Dependent Variable: DVS3	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	53.234 <sup>a</sup>	3	17.745	2.634	.056
Intercept	766.304	1	766.304	113.756	.000
SELF_EFFICACY * SATISFACTION	53.234	3	17.745	2.634	.056
Error	511.966	76	6.736		
Total	1782.000	80			
Corrected Total	565.200	79			

### 3-Way interaction

Table C9 Tests of Between-Subjects Effects

Dependent Variable: DVS3	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	71.815 <sup>a</sup>	7	10.259	1.497	.182
Intercept	538.992	1	538.992	78.655	.000
AUTONOMY * SATISFACTION * SELF_EFFICACY	71.815	7	10.259	1.497	.182
Error	493.385	72	6.853		
Total	1782.000	80			
Corrected Total	565.200	79			



## Study 4: Socialization

Table D1. Sample distribution

Variable	Type	Number of samples	Proportion
Sex	MALE	105	55.56%
	FEMALE	84	44.44%
	Sum	189	100.00%
Age	18-25	49	25.93%
	26-35	73	38.62%
	36-45	42	22.22%
	46-55	15	7.94%
	56 and over	10	5.29%
	Sum	189	100.00%
Education	Less than a high school diploma	2	1.06%
	High school degree or equivalent (e.g., GED)	14	7.41%
	Some college, no degree	35	18.52%
	Bachelor's degree (e.g., B.A., B.Sc.)	96	50.79%
	Master's degree (e.g., M.A., M.Sc., M.B.A.)	35	18.52%
	Professional degree (e.g., MD, LLD, DVM)	6	3.17%
	Doctorate (e.g., Ph.D., Ed.D.)	1	0.53%
	Sum	189	100.00%
Income	Less than \$20,000	18	9.52%
	\$20,000 to \$49,000	61	32.28%
	\$50,000 to \$79,000	52	27.51%
	\$80,000 to \$99,000	28	14.81%
	\$100,000 to \$149,000	18	9.52%
	\$150,000 or more	12	6.35%
	Sum	189	100.00%
Main employment status	Full-time employment	132	69.84%
	Part-time employment	24	12.70%
	Unemployed	9	4.76%
	Self-employed	7	3.70%
	Home-maker	7	3.70%
	Student	4	2.12%
	Retired	5	2.65%

	Other	1	0.53%
	Sum	189	100.00%

**Table D2 Descriptive Statistics**

Factors	Level	N
PEER_INFLUENCE	Low	90
	High	102
SOCIALIZATION	Low	92
	High	100
SOCIAL_DEBT	Low	92
	High	100

**Table D3 Descriptive Statistics-ANOVA**

PEER_INFLUENCE	SOCIALIZATION	SOCIAL_DEBT	Mean	Std. Deviation	N	
Low	Low	Low	3.67	2.045	45	
		High	4.31	1.888	13	
		Total	3.81	2.013	58	
	High	Low	Low	3.79	2.636	14
			High	6.00	1.815	18
			Total	5.03	2.443	32
	Total	Low	Low	3.69	2.176	59
			High	5.29	2.003	31
			Total	4.24	2.240	90
High	Low	Low	4.27	2.658	15	
		High	5.32	2.496	19	
		Total	4.85	2.584	34	
	High	Low	Low	3.89	2.826	18
			High	5.14	2.213	50
			Total	4.81	2.433	68
	Total	Low	Low	4.06	2.715	33
			High	5.19	2.277	69
			Total	4.82	2.471	102
Total	Low	Low	3.82	2.205	60	
		High	4.91	2.291	32	
		Total	4.20	2.283	92	
	High	Low	Low	3.84	2.701	32
			High	5.37	2.136	68
			Total	4.88	2.426	100
	Total	Low	Low	3.83	2.375	92
			High	5.22	2.186	100
			Total	4.55	2.377	192

**Table D4 ANOVA- Tests of Between-Subjects Effects**

Dependent Variable: DVS4	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	248.033 <sup>a</sup>	30	8.268	1.633	.029
Intercept	350.258	1	350.258	69.167	.000
PEER_INFLUENCE	2.594	1	2.594	.512	.475
SOCIALIZATION	.216	1	.216	.043	.836
SOCIAL_DEBT	62.450	1	62.450	12.332	.001
PEER_INFLUENCE * SOCIALIZATION *	11.192	1	11.192	2.210	.139
PEER_INFLUENCE * SOCIAL_DEBT	12.360	1	12.360	2.441	.120
PEER_INFLUENCE * SOCIALIZATION * SOCIAL_DEBT	.019	1	.019	.004	.952
SOCIALIZATION * SOCIAL_DEBT	3.061	1	3.061	.605	.438
Age	5.191	1	5.191	1.025	.313
Sex	35.069	4	8.767	1.731	.146
Income	51.525	6	8.587	1.696	.125
Education	15.406	5	3.081	.608	.694
Main employment status	28.433	7	4.062	.802	.587
Error	800.105	158	5.064		
Total	5007.000	189			
Corrected Total	1048.138	188			

Main effect

**Table D5 Tests of Between-Subjects Effects**

Dependent Variable: DVS4	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	22.441 <sup>a</sup>	1	22.441	4.034	.046
Intercept	3946.774	1	3946.774	709.423	.000
SOCIALIZATION	22.441	1	22.441	4.034	.046
Error	1057.038	190	5.563		
Total	5058.000	192			
Corrected Total	1079.479	191			

Table D6 Tests of Between-Subjects Effects

Dependent Variable: DVS4	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	16.033 <sup>a</sup>	1	16.033	2.865	.092
Intercept	3931.533	1	3931.533	702.425	.000
PEER INFLUENCE	16.033	1	16.033	2.865	.092
Error	1063.446	190	5.597		
Total	5058.000	192			
Corrected Total	1079.479	191			

Table D7 Tests of Between-Subjects Effects

Dependent Variable: DVS4	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	93.102 <sup>a</sup>	1	93.102	17.934	.000
Intercept	3921.102	1	3921.102	755.298	.000
SOCIAL DEBT	93.102	1	93.102	17.934	.000
Error	986.377	190	5.191		
Total	5058.000	192			
Corrected Total	1079.479	191			

Two-way interaction

Table D8 Tests of Between-Subjects Effects

Dependent Variable: DVS4	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	96.154 <sup>a</sup>	3	32.051	6.128	.001
Intercept	3536.992	1	3536.992	676.231	.000
SOCIAL DEBT * PEER INFLUENCE	96.154	3	32.051	6.128	.001
Error	983.325	188	5.230		
Total	5058.000	192			
Corrected Total	1079.479	191			

Table D9 Tests of Between-Subjects Effects

Dependent Variable: DVS4	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	97.750 <sup>a</sup>	3	32.583	6.240	.000
Intercept	3426.344	1	3426.344	656.141	.000
SOCIAL DEBT * SOCIALIZATION	97.750	3	32.583	6.240	.000
Error	981.730	188	5.222		
Total	5058.000	192			
Corrected Total	1079.479	191			

Table D10 Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	46.817 <sup>a</sup>	3	15.606	2.841	.039
Intercept	3696.986	1	3696.986	673.050	.000
SOCIALIZATION * PEER INFLUENCE	46.817	3	15.606	2.841	.039
Error	1032.662	188	5.493		
Total	5058.000	192			
Corrected Total	1079.479	191			

### 3-way interaction

Table D11 3-way interaction

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	119.516 <sup>a</sup>	7	17.074	3.273	.003
Intercept	3142.358	1	3142.358	602.309	.000
SOCIALIZATION * SOCIAL DEBT * PEER INFLUENCE	119.516	7	17.074	3.273	.003
Error	959.963	184	5.217		
Total	5058.000	192			
Corrected Total	1079.479	191			

1-Influence of interaction term SOCIALIZATION \* SOCIAL DEBT on dependent variable at different levels of factor PEER INFLUENCE

Table D12 Test Results

PEER INFLUENCE	Source	Sum of Squares	df	Mean Square	F	Sig.
Low	Contrast	73.496	3	24.499	4.696	<b>.003</b>
	Error	959.963 <sup>a</sup>	184 <sup>a</sup>	5.217		
High	Contrast	29.987	3	9.996	1.916	.129
	Error	959.963 <sup>a</sup>	184 <sup>a</sup>	5.217		

Table D13 Univariate Tests

PEER INFLUENCE	SOCIALIZATION		Sum of Squares	df	Mean Square	F	Sig.
Low	Little to no interaction	Contrast	4.145	1	4.145	.794	.374
		Error	959.963	184	5.217		
	A lot of interactions	Contrast	38.612	1	38.612	7.401	.007
		Error	959.963	184	5.217		
High	Little to no interaction	Contrast	9.226	1	9.226	1.768	.185
		Error	959.963	184	5.217		
	A lot of interactions	Contrast	20.717	1	20.717	3.971	.048
		Error	959.963	184	5.217		

Table D14 Pairwise Comparisons

PEER INFLUENCE	SOCIALIZATION	(I) SOCIAL DEBT	(J) SOCIAL DEBT	Mean Difference (I-J)	Std. Error	Sig. <sup>b</sup>	95% Confidence Interval for Difference <sup>b</sup>	
							Lower Bound	Upper Bound
Low	Little to no interaction	Low	High	-.641	.719	.374	-2.060	.778
		High	Low	.641	.719	.374	-.778	2.060
	A lot of interactions	Low	High	-2.214*	.814	.007	-3.820	-.608
		High	Low	2.214*	.814	.007	.608	3.820
High	Little to no interaction	Low	High	-1.049	.789	.185	-2.606	.507
		High	Low	1.049	.789	.185	-.507	2.606
	A lot of interactions	Low	High	-1.251*	.628	.048	-2.490	-.012
		High	Low	1.251*	.628	.048	.012	2.490

2- Influence of interaction term PEER INFLUENCE \* SOCIAL DEBT on dependent variable at different levels of factor SOCIALIZATION

Table D15 Test Results

SOCIALIZATION	Source	Sum of Squares	df	Mean Square	F	Sig.
Little to no interaction	Contrast	36.670	3	12.223	2.343	.075
	Error	959.963 <sup>a</sup>	184 <sup>a</sup>	5.217		
A lot of interactions	Contrast	60.405	3	20.135	3.859	.010
	Error	959.963 <sup>a</sup>	184 <sup>a</sup>	5.217		

Table D16 Test Results

SOCIALIZATION	PEER INFLUENCE	Source	Sum of Squares	df	Mean Square	F	Sig.
Little to no interaction	Low	Contrast	4.145	1	4.145	.794	.374
		Error	959.963 <sup>a</sup>	184 <sup>a</sup>	5.217		
	High	Contrast	9.226	1	9.226	1.768	.185
		Error	959.963 <sup>a</sup>	184 <sup>a</sup>	5.217		
A lot of interactions	Low	Contrast	38.612	1	38.612	7.401	.007
		Error	959.963 <sup>a</sup>	184 <sup>a</sup>	5.217		
	High	Contrast	20.717	1	20.717	3.971	.048
		Error	959.963 <sup>a</sup>	184 <sup>a</sup>	5.217		

3- Influence of interaction term PEER INFLUENCE \* SOCIALIZATION on dependent variable at different levels of factor SOCIAL DEBT

Table D17 Univariate Tests Results

SOCIAL DEBT	Source	Sum of Squares	df	Mean Square	F	Sig.
Low	Contrast	4.149	3	1.383	.265	.850
	Error	959.963 <sup>a</sup>	184 <sup>a</sup>	5.217		
High	Contrast	22.266	3	7.422	1.423	.238
	Error	959.963 <sup>a</sup>	184 <sup>a</sup>	5.217		

Table D18 Pairwise Comparisons

Dependent Variable: DV54

SOCIAL DEBT	SOCIALIZATION	(I) PEER INFLUENCE	(J) PEER INFLUENCE	Mean Difference (I-J)	Std. Error	Sig. <sup>a</sup>	95% Confidence Interval for Difference <sup>a</sup>	
							Lower Bound	Upper Bound

Low	Little to no interaction	Low	High	-.600	.681	.379	-1.944	.744
		High	Low	.600	.681	.379	-.744	1.944
	A lot of interactions	Low	High	-.103	.814	.899	-1.709	1.503
		High	Low	.103	.814	.899	-1.503	1.709
High	Little to no interaction	Low	High	-1.008	.822	.222	-2.630	.614
		High	Low	1.008	.822	.222	-.614	2.630
	A lot of interactions	Low	High	.860	.628	.172	-.379	2.099
		High	Low	-.860	.628	.172	-2.099	.379

Table D19 Univariate Tests

Dependent Variable: DVS4

SOCIAL DEBT	PEER INFLUENCE		Sum of Squares	df	Mean Square	F	Sig.
Low	Low	Contrast	.151	1	.151	.029	.865
		Error	959.963	184	5.217		
	High	Contrast	1.168	1	1.168	.224	.637
		Error	959.963	184	5.217		
High	Low	Contrast	21.618	1	21.618	4.144	.043
		Error	959.963	184	5.217		
	High	Contrast	.425	1	.425	.082	.776
		Error	959.963	184	5.217		

Table D20 Univariate Tests

Dependent Variable: DVS4

SOCIAL DEBT	SOCIALIZATION		Sum of Squares	df	Mean Square	F	Sig.
Low	Little to no interaction	Contrast	4.050	1	4.050	.776	.379
		Error	959.963	184	5.217		
	A lot of interactions	Contrast	.084	1	.084	.016	.899
		Error	959.963	184	5.217		
High	Little to no interaction	Contrast	7.844	1	7.844	1.504	.222
		Error	959.963	184	5.217		
	A lot of interactions	Contrast	9.789	1	9.789	1.876	.172
		Error	959.963	184	5.217		