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Why and When Consumers Prefer Products of User-Driven Firms: A Social Identification Account

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Companies are increasingly drawing on their user communities to generate promising ideas for new products, which are then marketed as “user-designed” products to the broader consumer market. We demonstrate that nonparticipating, observing consumers prefer to buy from user- rather than designer-driven firms because of an enhanced identification with the firm that has adopted this user-driven philosophy. Three experimental studies validate a newly proposed social identification account underlying this effect. Because consumers are also users, their social identities connect to the user-designers, and they feel empowerment by vicariously being involved in the design process. This formed connection leads to preference for the firm’s products. Importantly, this social identification account also effectively predicts when the effect does not materialize. First, we find that if consumers feel dissimilar to participating users, the effects are attenuated. We demonstrate that this happens when the community differs from consumers along important demographics (i.e., gender) or when consumers are nonexperts in the focal domain (i.e., they feel that they do not belong to the social group of participating users). Second, the effects are attenuated if the user-driven firm is only selectively rather than fully open to participation from all users (observing consumers do not feel socially included). These findings advance the emerging theory on user involvement and offer practical implications for firms interested in pursuing a user-driven philosophy.

Data, as supplemental material, are available at <http://dx.doi.org/10.1287/mnsc.2014.1999>.

Keywords: user innovation; user design; user-generated products; crowdsourcing; social identity; corporate associations; consumer preferences; open source software

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1. Introduction

Over the past decade, an emerging stream of research has identified and chronicled a new role that users are playing in the firm’s value creation process (e.g., von Hippel 2005, Franke et al. 2010). User-driven design, simply defined as an innovation approach whereby organizations draw on their user communities (versus their own in-house designers/employees) to generate ideas for new products, has been shown to be an effective strategy in a variety of industries. Indeed, success stories such as Apache (software), Quirky (household products), Muji (furniture), and Threadless (apparel), to name a few examples, have leveraged their user base to find innovation success. These organizations have inspired other companies to see users no longer as mere buyers and consumers but as a collective crowd of creative individuals willing and able to cocreate value with the firm (von Hippel 2005). Academic research in this area has sought to

identify best practices in pursuing this innovation approach and also to provide a deeper understanding of the motivations of consumers to become involved in user design in some capacity. In this paper, we build on the latter line of investigation by broadening the notion of consumer participation in user design by demonstrating that even *nonparticipating users* (i.e., consumers who merely observe and learn about the firm’s market philosophy; see Moreau and Herd 2010) are better able to identify with a user-driven firm and thereby influence their attitudes and preferences toward the firm’s products and activities.

Where does our research fit with respect to this burgeoning literature? First, innovation scholars have shown that user-driven firms can gain a competitive advantage in the market because they may be able to generate better new products that offer a closer fit to what consumers really need (e.g., Lilien et al. 2002, von Hippel 2005, Poetz and Schreier 2012, Nishikawa

et al. 2013). Second, in addition to this “objective” argument, more recent research indicates that there might be also more subtle, psychological effects among users who *actively participate* in a firm’s value creation process. Specifically, Fuchs et al. (2010) find that participating users feel they have a personal and direct impact on the company’s product offerings, resulting in positive outcomes for participating users’ demand for products of the user-driven firm (see also Ramani and Kumar 2008). Finally, a third line of research centers not around participating users themselves but around the potentially bigger customer target of nonparticipating users. Specifically, it has been put forth that “observing” consumers also might more strongly demand products of user- versus designer-driven firms. It is here where the current research seeks to make a strong contribution.

In this research area, thus far two related arguments have been discussed to explain such a potential positive user-design effect. Schreier et al. (2012) find that, in low-tech domains, observing consumers associate user-driven firms with higher innovation abilities; i.e., consumers hold the belief that a user-driven firm is able to generate more novel and useful products. Different corporate ability associations of a firm’s innovation practice might thus affect, or “bias,” subjective product attribute perceptions (Brown and Dacin 1997). In turn, Fuchs and Schreier (2011) argue that consumers see user-driven firms not only as innovative but also more customer-oriented; i.e., consumers believe that such firms “put the customer’s interests first” and are better at and more willing to understand user needs. This attribution is shown to lead to a positive effect on consumers’ purchase intent for products of user-driven firms.

In the current research, we move beyond the simple attribution framework articulated in these initial studies and seek to identify a more fundamental user outcome that underlies a positive user-design effect. Instead of building on the corporate ability–product evaluation framework (a firm’s market philosophy → corporate ability associations → product attribute perceptions → product preference), we ask when and why consumer perceptions of user-driven firms might change the relationship consumers develop with the firm (a firm’s market philosophy → identification with the firm → product preference, controlling for product attribute perceptions). Namely, we explore why a firm’s market philosophy (being user-driven versus designer-driven) can influence how a consumer identifies with an institution and assess how this identification changes consumer preferences.

Importantly, we experimentally disentangle this identification effect from mere product effects, i.e., effects stemming from differences in objective product characteristics and subjective product attribute perceptions.

As with any attempt to “explain” an empirical phenomenon, we acknowledge that other mechanisms that relate to the phenomenon may additionally exist, but they are outside the scope of the current enquiry pursued. Yet we are confident that the newly proposed account described hereafter is an important one that not only advances our conceptual understanding of the emerging phenomenon of user design but also offers actionable implications for managers.

We offer the following key contributions to the extant literature. Drawing on social identity theory (Tajfel and Turner 1986), we first identify a “user-driven philosophy effect”; i.e., we demonstrate that consumers prefer to buy from user- rather than designer-driven firms because of an increased identification on the part of the consumer with the firm. Indeed, we find that a user-driven philosophy aligns with a consumer’s social identity and builds connection and bonding for the consumer toward the organization. This work is critically important because it is the first to establish *why* an observing consumer favors a user-driven philosophy, i.e., an identification mechanism born of positive attributions toward the firm’s activities in this space.

Second, we provide insight into why consumers can identify more strongly with user-driven firms. We find that observing consumers feel psychologically empowered themselves when they see users participating in design; i.e., they feel vicariously involved in shaping the firm’s product offerings. The documentation of such vicarious feelings of empowerment is distinct from the study by Fuchs et al. (2010), because we do not study consumers who actively participated in the firm’s value creation process but rather nonparticipating observing consumers who might constitute the mass of a firm’s potential customer base. We also believe that the focal empowerment construct is not only conceptually distinct from but also more meaningful to understand the phenomenon compared to the more generic customer orientation construct discussed in prior research (Fuchs and Schreier 2011). A designer-driven firm can “become” customer oriented through a range of activities ranging from observing and talking to consumers to directly involving them in the design process. Such customer-orientation activities, however, do not necessitate vicarious feelings of empowerment for the observing consumers. Indeed, our investigation shows that empowerment is not only conceptually but also empirically distinct from customer orientation.

Third, our social identification account is demonstrated to help to predict *when* effects are likely to be less pronounced, i.e., when consumers’ preference for user-driven firms does not materialize. We find that if consumers feel dissimilar to participating users, the effects are attenuated. This happens, for example, when the community differs from consumers along demographic characteristics (e.g., gender) or when consumers

do not feel that they belong to the social group of participating users for some other reasons (e.g., because they are novice consumers). These findings advance our understanding of the phenomenon in a major way; they help to explain why some consumers may be very enthusiastic about specific user-driven firms while others might be more apathetic. Take the user community of Threadless as an illustrative example: the community appears to be relatively young and hip, and our social identity account helps to explain why other young and hip consumers might be favorable toward Threadless T-shirts. It also helps to explain, however, why older and more traditional consumers, for example, might show little interest in the organization and its products. It is noteworthy that this pattern of results cannot plausibly be explained by the previously documented innovation ability and customer-orientation accounts; there is no reason to believe that consumers who feel more versus less dissimilar to the design community (e.g., because they do not share versus share the same gender) perceive the user-driven firm any differently in terms of customer orientation and innovation ability.

Finally, we show that effects are attenuated if the user-driven firm is selective rather than fully open to participation from all users (i.e., observing consumers do not feel that the firm is truly inclusive to users, including themselves). This finding once again supports our social identification account and highlights its unique contribution to the extant literature; i.e., it is hard to imagine why a user-driven firm drawing on selected, presumably more expert users might be perceived to be less innovative and/or less customer oriented than a user-driven firm that is also more open to input from lay consumers. In summary, our newly proposed social identification account is shown to offer a more nuanced view of user-driven firms, and our conceptualization helps to define when the user-driven philosophy effect may materialize versus not materialize—predictions that could not have been plausibly defended based on prior research in this domain.

2. Hypotheses Development

2.1. A Social Identification Account for

Consumers' Preference for User-Driven Firms

To develop our key prediction, we draw on social identity theory (Tajfel and Turner 1986). Social identity is “the shared social categorical self.” It refers to the “social categorizations of self and others, self-categories that define the individual in terms of his or her shared similarities with members of certain social categories in contrast with other social categories” (Turner 1999, p. 11). Social identity theory posits that we do not exclusively perceive ourselves as “I” and “me” (personal identity) but also as “we” and “us” (social identity)

(Turner 1999). When doing so, “the self becomes identical, equivalent, or similar to them . . . [and] the self can be defined and experienced subjectively as a social collectivity” (Turner et al. 1994, p. 454). Social identity theory thus broadly argues that our identity is not only formed on the basis of our own values and achievements but also on the basis of those of relevant others: people with whom we identify (Cialdini et al. 1976).

Importantly, any accomplishments by our relevant others might affect the perception of our own identity. If a female is awarded the Nobel Prize, for example, females can be observed to activate their female self-identity, which in turn makes them feel flattered by the prize—in a way, a relevant other’s achievement becomes almost one’s own achievement (Cialdini et al. 1976). In our research context, it is important to reemphasize that the consumers we analyze did *not* interact with the firm themselves (i.e., they did not submit new product designs). Not unlike the Nobel Prize example, however, we posit that firms that actively integrate their users into their business models might activate similar identity-relevant attributions among observing consumers. This is because consumers belong to the same broader social category of users, which implies that observing consumers might readily activate their “user identity” when encountering a user-driven firm. If users like oneself are getting the power to shape the product offerings of a given firm, one might subjectively experience a social collectivity toward users; psychologically, it might almost be like having participated oneself (cf. Cialdini et al. 1976).

Research indicates that such a power shift between firms and their users might be highly relevant to consumers. In particular, consumers are increasingly observed as feeling alienated in the marketplace and vis-à-vis firms, not being able to exert influence (Perelman 2005). At the same time, consumers often seek ways to increase their relative power in the marketplace by launching or joining consumer movements, for example (Kozinets and Handelman 2004). Indeed, the creation of open source software started as an initiative to escape the dominance of powerful corporations such as Microsoft and thereby to recapture some level of independence for consumers (DiBona et al. 1999). We argue that user-driven firms align with this phenomenon: empowering users to have more influence in a company’s actions corrects the potential power imbalance consumers might perceive in the marketplace.

Thus, we reason that a firm’s market philosophy constitutes an important corporate association that activates identity-relevant attributions; through the empowerment of like-minded others, observing consumers will feel vicariously empowered themselves. What follows is a stronger identification with the underlying firm. If user-driven firms enable observing consumers to

develop a stronger firm identification, which we define as the extent to which the company becomes connected to consumers' mental representation of self (Escalas and Bettman 2005), consumers will value the firm. Indeed, we predict that this process can explain why consumers might develop a preference for products of user- versus designer-driven firms (Park et al. 2010). This means that a firm's market philosophy might directly impact consumer preferences, independent of any effects stemming from differences in objective product characteristics and other subjective product attribute perceptions. In summary, we hypothesize as follows.

HYPOTHESIS 1A (H1A). *Observing consumers' preference for products of user-driven firms (versus designer-driven firms) is driven by higher levels of consumer identification with the firm.*

HYPOTHESIS 1B (H1B). *Observing consumers' feelings of vicarious empowerment underlie higher levels of consumer identification with user-driven firms (versus designer-driven firms).*

2.2. The Importance of Similarity Between Observing Consumers and Users

An important assumption of our social identification account is that observing consumers feel that they "belong" to the firm's participating user community. As Tajfel (1972) notes, this feeling of belongingness is determined by the extent to which one feels similar to other members of the group. Thus, we do not predict that the impact of a firm's market philosophy will be equivalent for all consumers; instead, we posit that the perceived similarity between observing consumers and participating users will be an important moderating factor in defining a user-driven effect. In the case of low similarity, consumers might not readily activate their "user identities" and thus not experience a social collectivity toward the community. Such consumers might also experience lower levels of perceived empowerment and firm identification as well as a reduced preference for products of user-driven firms. In contrast, consumers that are similar to user-designers will be more likely to identify with the firm, feel empowered by the involvement of users in the firm's design activities, and be more responsive to products offered by the firm.

Such a moderation effect would provide convergent evidence for the overarching social identification mechanism underlying H1A and H1B. Beyond its theoretical importance, it would also point to actionable managerial implications: comparing the user-designer community with the broader potential customer base could guide firms to identify the most promising targets of observing consumers. For example, if a firm's active user community is predominantly female, a user-driven

philosophy might resonate particularly well among observing female consumers (shared gender might impact perceived similarity). These arguments lead to the following hypothesis.

HYPOTHESIS 2 (H2). *Observing consumers' preference for products of user-driven firms will be moderated by their perceived similarity to participating users such that for consumers who feel dissimilar (versus similar), preference will be attenuated.*

2.3. The Importance of Open Participation for the User-Driven Firm

Our theory also rests on the implicit assumption that the user-driven firm is "open to participation," meaning that the firm is welcoming to anyone who submits new product ideas and participates in the design process (including observing consumers). This openness ensures that consumers can readily connect with participating users, activate their user identities, and consequently perceive increased levels of empowerment, etc., even if they themselves have not participated in the firm's value creation process. Indeed, we posit that providing the simple option of potential involvement is a key characteristic in fostering the identity link between the consumer and the user-driven firm.

It is also possible, however, that a user-driven firm's business model might be more selective, meaning that the firm invites only selected users to participate—in order, for example, not to get overloaded with too many, potentially mediocre ideas (Shah 2006, Pisano and Verganti 2008). In practice, firms pursue either a completely open or a more selective "gated" consumer participation model. Whereas Threadless, for example, is completely open (anyone can submit new T-shirt designs), the Italian design firm Alessi is more selective: It decides who participates in its network (Pisano and Verganti 2008). Thus, the ultimate selection decision for participation resides not with the interested, firm-external agent but with the underlying firm. In that respect, the selectively open philosophy more closely matches the designer-driven business model where the firm contractually selects their creative agents a priori.

Would observing consumers' reaction to a selectively open firm be similar to the one hypothesized for a user-driven firm that is completely open in participation? This question seems not only important from a managerial perspective, but it also validates the theoretical underpinnings of H1A and H1B. In short, we predict that the beneficial effects of a user-driven philosophy might be attenuated as the openness of the business model decreases (i.e., not everyone can participate). Whereas in a completely open scenario, consumers naturally feel socially included and connected, consumers might feel less connected when encountering a more selective user-driven firm. Consequently, consumers would experience lower levels of firm identification and

a reduced preference for products of such user-driven firms. Formally, we state this effect in the following hypothesis.

HYPOTHESIS 3 (H3). *Observing consumers' preference for products of user-driven firms will be moderated by the participation openness of the firm such that for selectively open (versus fully open) firms preference will be attenuated.*

3. Overview of Studies

In the following sections, we present three studies that explore when and why consumers prefer products of user-driven firms. Study 1 (T-shirts) first validates the user-design phenomenon by establishing a consumer preference for products developed by user-driven firms and identifies the mechanism that underlies this effect by showing that consumers' preference for products of user-driven firms is mediated by higher levels of firm identification (H1A). Furthermore, this study provides understanding of why consumers can identify more strongly with user-driven firms. Specifically, we show that the empowerment of users in the design process enables observing consumers to also feel psychologically empowered (H1B). Study 2 (cereals) then validates the similarity hypothesis (H2) and provides convergent evidence for the overarching social identification account. By manipulating the similarity shared between the user-designers and the observing consumers, we find that consumers' preference for user-driven firms is indeed attenuated in cases of low similarity. Finally, Study 3 (software) validates the openness hypothesis (H3). Consistent with the social identification account, a manipulation of the user-driven firm's business model reveals that the user-design effect is attenuated if the user-driven firm is only selectively rather than fully open to participation from all users.

4. Study 1

4.1. Objectives and Overview

The primary objective of Study 1 was to test our proposed social identification account, which states that a user-driven philosophy increases the extent to which consumers can identify with a firm. We examine increased levels of firm identification on the part of the consumer to see if they would drive consumers' preference for user-driven firms (H1A). The second objective of Study 1 was to investigate whether perceived empowerment induced by the user-driven firm might underlie the effects of firm identification (H1B). Finally, Study 1 assessed whether a customer-orientation account might explain the identified effects. To do so, we empirically control for customer orientation in our main study, and in a follow-up test, we experimentally assess whether a customer-orientation cue can override the

user-driven philosophy. Guided by practical examples of user-driven firms, we selected T-shirts as the product category to study.

4.2. Method

Participants were 244 consumers ($M_{\text{age}} = 34$ years, 49% female) recruited from Amazon's Mechanical Turk website. Participants were exposed to two firms labeled Firm A and Firm B. In this and subsequent studies, participants were informed that the real brand names were blinded. The firms were described as differing in their market philosophies (see the supplemental material, available at <http://dx.doi.org/10.1287/mnsc.2014.1999>, for details). Specifically, participants were informed that one firm was positioned as a firm that is strongly driven by its designers (i.e., firm-internal designers come up with new product ideas/designs to be marketed to the general public). The other firm was described as a firm that instead is strongly driven by its user community (i.e., customers come up with new product ideas/designs to be marketed to the general public). The between-subjects treatment (i.e., firm philosophy factor) was that Firm A was described as the user-driven firm and Firm B as the designer-driven firm, or vice versa (Firm A was designer-driven and Firm B was user-driven). Participants were then exposed to two unisex T-shirts with different aesthetic designs—one T-shirt from Firm A and one from Firm B.

After having been exposed to the T-shirt designs and the firms' background information, participants completed a short questionnaire. Product preference was captured by asking participants to indicate which of the two T-shirts they would buy if they needed one. We complemented this choice question with a seven-point horizontal (strong preference for the T-shirt of Firm A/B; 7/1) and vertical (I would more likely buy a T-shirt from Firm A/B; 7/1) preference scale. The measures were standardized to form a compound product preference index ($\alpha = 0.96$).

The product preference measures were preceded by four items capturing our focal mediator variable, firm identification (Escalas and Bettman 2005; $\alpha = 0.98$). Example items were "I feel more connected with Firm A/B" and "I can identify more with Firm A/B" (7/1). We captured consumers' perceived empowerment by six items (Pierce et al. 1989). Example items included "This firm makes me feel that I can make a difference," "This firm makes me almost feel like I have been 'empowered,'" and "This firm makes me feel like I have power on the firm's product offerings" (7/1; $\alpha = 0.97$). The empowerment items were followed by customer-orientation scales (Fuchs and Schreier 2011). Following the preamble "How customer-oriented do you perceive Firm A in relation to Firm B?," participants completed six items. Example items included "The firm tries to help customers to achieve their goals," "...has the

customers' best interest in mind," and "Customers can count on this firm to take action to address customers' needs" (7/1; $\alpha = 0.90$). Finally, we captured respondents' perceived similarity to the users of the user-driven firm's community in order to explore the interaction pattern predicted in H2. The preamble read, "Please think of the specific user community of Firm A/B. How similar do you think are the members of the user community to yourself?" Participants completed four five-point bipolar rating scales; example items included "I feel not similar (I feel similar)" and "I feel (not) very close to the members of the community" (1/5; $\alpha = 0.93$). (For a full list of scale items, see the supplemental material.)

4.3. Findings and Discussion

4.3.1. Discriminant Validity of Focal Constructs.

A series of confirmatory factor analyses were conducted to demonstrate that the constructs of interest are empirically distinct. First, χ^2 -difference tests reveal that two-factor models are superior to and significantly better than single-factor models (product preference/firm identification: $p < 0.001$; firm identification/perceived empowerment: $p < 0.001$; perceived empowerment/customer orientation: $p < 0.001$). Second, Fornell–Larcker tests reveal that the average variances extracted exceed the shared variance between the constructs tested, which support discriminant validity. Moreover, the factor loadings in the two-factor models prove to be high and significant (all λ values > 0.65 , all p values < 0.001), which indicates that the focal items reflect their underlying constructs in a valid way. The same tests were also performed in subsequent studies that yielded similar results and thus are not discussed further.

4.3.2. Product Preference. An analysis of variance (ANOVA) with product preference as the dependent variable and the firm philosophy factor as the independent variable shows that if Firm A is described as a user-driven firm, respondents demonstrate a significantly stronger preference for the firm's products than if Firm A is described as a designer-driven firm ($M_{\text{User A}} = 0.43$, $M_{\text{Designer A}} = -0.18$; $F_{1,242} = 25.52$, $p < 0.001$).

4.3.3. Firm Identification. A similar pattern of effects is identified for firm identification as the dependent variable; i.e., participants identify more strongly with Firm A if it is described as being user-driven versus designer-driven ($M_{\text{User A}} = 4.58$, $M_{\text{Designer A}} = 3.21$; $F_{1,242} = 33.19$, $p < 0.001$). To investigate the proposed role of firm identification in motivating preference ratings, we tested for mediation using bootstrapping procedures (Hayes 2013). Firm philosophy served as the independent variable, firm identification as the mediator variable, and product preference as the

dependent variable. Bootstrapping analyses reveal that firm identification mediates the path of firm philosophy on product preference (95% confidence interval ($CI_{95\%}$): 0.21, 0.43), supporting our prediction in H1A. Importantly, these findings also hold if customer orientation is added as a second, independent mediator; i.e., perceived customer orientation ($CI_{95\%}$: -0.02 , 0.03) did not mitigate the influence of firm identification ($CI_{95\%}$: 0.20, 0.42) on product preference.

4.3.4. Perceived Empowerment. An ANOVA on perceived empowerment reveals a significant effect of the firm philosophy factor: if Firm A was described as a user-driven firm, respondents felt psychologically more empowered than if Firm A was described as a designer-driven firm ($M_{\text{User A}} = 3.81$, $M_{\text{Designer A}} = 2.11$; $F_{1,242} = 215.78$, $p < 0.001$). These findings corroborate the prediction that observing consumers feel psychologically empowered by the user-driven firm. To obtain further insight, we specified a mediation model where firm philosophy was the independent variable, feelings of empowerment the mediator variable, and firm identification the dependent variable. We specified perceived customer orientation as a second mediator variable. As predicted in H1B, bootstrapping analyses reveal that perceived empowerment mediates the path from firm philosophy to firm identification ($CI_{95\%}$: 0.44, 1.02). Customer orientation was also significant in this model ($CI_{95\%}$: 0.10, 0.42). Although the study confirmed that both perceived empowerment and customer orientation prove to be independent mediators, the magnitudes of the two confidence intervals suggest that perceived empowerment has a stronger mediating influence on firm identification than customer orientation (i.e., the two confidence intervals only slightly overlap).

4.3.5. Similarity. We next analyzed consumers' perceived similarity to the user-driven firm's community. If our social identification account is valid, perceived similarity should moderate the identified effects; they should be stronger for consumers who feel similar to participating users (H2). Such a pattern would also alleviate demand concerns for the effects reported above. As described in the supplemental material, we indeed find a significant firm philosophy \times similarity interaction ($\beta = 1.76$, $t_{240} = 8.90$, $p < 0.001$). Interestingly, a floodlight analysis reveals that participants who perceive themselves as highly *dissimilar* to the user base have a stronger preference for products of the *designer*-driven firm; i.e., we identify a *negative* user-driven philosophy effect for these participants. (For participants who feel similar to the user base, in contrast, we replicate the positive effects reported above.)

4.3.6. Discussion. Study 1 validates the hypothesis that consumers display a preference for products of user-driven firms and provides insight into the mechanism that underlies this effect. First, we show that consumers indicate stronger preferences for firms that adopt a user-driven philosophy in their product development efforts. Indeed, in a follow-up replication study in an actual product choice context, participants (92 university students, $M_{\text{age}} = 22$ years, 66% female) were informed that they would be entered into a raffle to win one of two T-shirts and were asked to indicate which one they would like to win. Utilizing our Study 1 design, a logistic regression of the behavioral choice measure on the market philosophy manipulation showed that if Firm A was described as a user-driven firm, its T-shirt was chosen significantly more frequently (71%) than if it was described as a designer-driven firm (49%, $\chi^2 = 4.45$, $p < 0.05$). Study 1 demonstrates (as does its follow-up) that a user-driven philosophy provides a significant shift in preference for the resulting consumer good when compared with the more traditional designer-driven approach.

Second, this study provides strong evidence for the proposed social identification account that acts as a mechanism for the effects identified. Indeed, a user-driven philosophy increases the extent to which consumers can identify with the firm, which in turn mediates consumers' preference for user-driven firms (H1A). Importantly, this study also shows that observing consumers report feelings of empowerment, although they have not participated in the firm's value creation process themselves. Perceived empowerment induced by the user-driven firm is found to mediate the effect on firm identification (H1B).

Third, this study also demonstrated that customer orientation, on the part of a user- versus designer-driven firm, does not explain the role of social identification in this context. Control measures of customer orientation did not mitigate the influence of firm identification. To buttress this conclusion, a two-cell follow-up study (252 consumers, $M_{\text{age}} = 34$ years, 46% female) where the designer-driven firm (either Firm A or Firm B) was described to be highly customer-oriented was run. This description was effective in holding perceived customer-orientation constant across the two conditions ($M_{\text{User A}} = 2.92$, $M_{\text{Designer A}} = 2.82$; $F < 1$, not significant (NS)). However, if consumers' preference for user-driven firms is simply attributable to enhanced customer orientation, we should not observe significant differences between the user-driven firm and the designer-driven firm portrayed as being highly customer oriented, i.e., a null effect between the two conditions. Instead, and consistent with our account, results reveal that consumers' preference for user-driven firms also emerges in this scenario ($M_{\text{User A}} = 0.04$,

$M_{\text{Designer A}} = -0.27$; $F_{1,250} = 7.35$, $p < 0.01$). The inability of the customer-orientation condition to match user-driven outcomes provides additional evidence that a firm's user-driven philosophy provides more than a simple customer focus.

5. Study 2

5.1. Objectives and Overview

The primary objective of Study 2 was to formally test H2: whether observing consumers' preference for products of user-driven firms is moderated by their perceived similarity with participating user-designers. We accomplished this goal by varying the description of the user community. Specifically, we used a gender cue to manipulate social identity; one's gender is a highly accessible identity and thus activated easily. As a result, people often categorize themselves and others as members of an in-group if they share the same gender (Turner et al. 1994). Thus, perceived similarity between consumers and participating users might vary as a function of the respective gender match. By using a female sample of consumers, we can test whether a match versus mismatch in gender between observing consumers and participating users (a predominantly female versus male community) affects the user-driven philosophy effect. Finally, we changed the product category to breakfast cereals to add generalizability.

5.2. Method

Participants were 483 female consumers ($M_{\text{age}} = 38$ years) who were recruited by a European market research agency and who agreed to participate in a study on breakfast cereals. Participants were introduced to two cereal start-up firms (Firm A and Firm B) that were reported to have recently gained market share in the participants' country. Consumers were informed that the two firms differed in their market philosophies. Similar to Study 1, Firm A was described as the user-driven firm and Firm B as the designer-driven firm, or vice versa (see the supplemental material for details). We also manipulated respondents' similarity with participating users by varying the community's gender; i.e., the user-driven firm was described as drawing on a predominantly male versus female community (i.e., "This community consists of 95% females/males"). In addition, and to minimize differences in terms of the respondents' product attribute perceptions across experimental conditions, participants were informed that the cereals of both firms were evaluated very well in an independent consumer test. In summary, the experimental design was a 2 (firm philosophy: Firm A user-driven versus Firm A designer-driven) \times 2 (community type of user-driven firm: male versus female) between-subjects design.

After having read the manipulations, participants were exposed to color pictures and descriptions of two

cereals (one cereal mix from Firm A and one from Firm B), each consisting of nine ingredients. This was followed by a short questionnaire. Following Study 1, product preference ($\alpha = 0.92$) and firm identification ($\alpha = 0.96$) were measured. As a manipulation check, we captured respondents' perceived similarity with the user-driven firm's community with the same items as in Study 1 (e.g., dissimilar/similar: 1/7; $\alpha = 0.91$). As a control, we also captured respondents' subjective product attribute perceptions. Respondents rated the cereals of the two firms in terms of (1) taste and (2) functionality (well-being, healthiness, calories, energy, etc.) (cereal of Firm A better/cereal of Firm B better: 5/1).

5.3. Findings and Discussion

5.3.1. Perceived Similarity (Manipulation Check).

A 2 (firm philosophy: Firm A user-driven versus Firm A designer-driven) \times 2 (community type of user-driven firm: male versus female) ANOVA on perceived similarity revealed only a main effect of community type ($F_{1,479} = 34.80$, $p < 0.001$; other F values < 1 , NS). As expected, female respondents felt more similar to participating users in the case of a female versus male community ($M_{\text{Female community}} = 4.21$ versus $M_{\text{Male community}} = 3.53$).

5.3.2. Product Preference/Firm Identification.

A 2 \times 2 ANOVA on product preference revealed only a significant interaction effect ($F_{1,479} = 5.19$, $p < 0.05$). Supporting H2, we find that if Firm A was described as drawing on a female user community, female respondents demonstrate a significantly stronger preference for Firm A's product ($M_{\text{User A}} = 0.12$) than if Firm A was described as a designer-driven firm ($M_{\text{Designer A}} = -0.14$; $F_{1,479} = 4.62$, $p < 0.05$). In contrast, this effect tends to reverse, albeit not statistically significantly, if the user-driven firm was described as drawing on a male user community ($M_{\text{User A}} = -0.05$, $M_{\text{Designer A}} = 0.08$; $F_{1,479} = 1.15$, $p = 0.28$). The results are parallel if we run a 2 \times 2 ANOVA on firm identification (interaction effect: $F_{1,479} = 21.75$, $p < 0.001$). As predicted, participants in the female user community conditions identify significantly more strongly with Firm A if described as being user- versus designer-driven ($M_{\text{User A}} = 4.52$, $M_{\text{Designer A}} = 3.77$; $F_{1,479} = 18.41$, $p < 0.001$). In the male user community conditions, the effect reverses: participants identify significantly less with Firm A if it is described as being user- versus designer-driven ($M_{\text{User A}} = 3.79$, $M_{\text{Designer A}} = 4.18$; $F_{1,479} = 5.30$, $p < 0.05$).

5.3.3. Moderated Mediation.

A mediation model (firm philosophy \rightarrow firm identification \rightarrow product preference) moderated by community type reveals that the interaction between firm philosophy and community type on preference is mediated by firm identification ($CI_{95\%}: -0.45, -0.18$). We find a positive indirect effect of firm philosophy on product preference through

firm identification in the female community condition ($CI_{95\%}: 0.10, 0.30$). In the male community conditions, however, we find a negative indirect effect of firm philosophy on preference through firm identification ($CI_{95\%}: -0.20, -0.02$). Importantly, these results remain robust if we run a moderated mediation model with the two subjective product attribute perceptions (taste and functionality) as covariates. Results thus indicate that elevated levels of firm identification mediate consumer's preference for user-driven firms also after having controlled for subjective product attribute perceptions (i.e., these perceptions do not constitute an alternative account).

5.3.4. Discussion. In Study 2, we manipulated the similarity between observing consumers and participating users. Results provide convergent evidence for our social identification account and formally support H2: observing consumers' preference for products of user-driven firms is moderated by their similarity with participating users such that the user-driven philosophy effect is stronger for consumers who feel more versus less similar. In a follow-up replication study, we tested a second form of similarity: the expertise of the observer as a match to an implicit characteristic of the user community. Participants (605 students, $M_{\text{age}} = 25$ years, 52% female) were informed that the study was a concept test for a video-editing software product. Utilizing our Study 1 design and an individual difference measure of software expertise, a hierarchical regression model shows a significant interaction ($\beta = 0.08$, $t_{601} = 1.98$, $p < 0.05$) such that consumers' preference for user-driven firms is significant and positive once respondents score -0.01 or higher on expertise (empirical range: -1.20 – 2.13 ; $M_{\text{expertise}} = 0.00$; significance range for expertise: -0.01 – 2.13 , $p < 0.05$). Below that threshold level of expertise, however, the user-driven philosophy effect is insignificant. Echoing the results of Study 2, we again find a moderating influence for similarity (in this instance, observing consumers' expertise matched to the user-designer's), such that only expert consumers were shown to demonstrate higher product preferences for the user-driven firm (see the supplemental material).

6. Study 3

6.1. Objectives and Overview

The previous study examined individual differences of the observing consumers and participating users that act as meaningful moderators for our social identification account. In contrast, the primary objective of Study 3 is to test whether characteristics of the user-driven firm itself might create important boundary conditions for the effects identified. Specifically, we examine whether consumers' preference for user-driven firms is moderated by the openness of the underlying

firm's business model. Will the effects be attenuated if the firm is selectively rather than fully open to its user community (H3)? In this instance, we reason that a lack of openness prevents consumer identification with the firm from materializing. We utilized software as a product category to study.

6.2. Method

For this study, the sample consisted of 216 consumers ($M_{\text{age}} = 28$ years, 54% females) recruited by a European market research agency. Identical to the previous studies, the firm philosophy between-subjects treatment identified Firm A as the user-driven firm and Firm B as the designer-driven firm, or vice versa (see the supplemental material for details). We additionally manipulated the openness of the user-driven firm. Participants in the completely open condition were informed that for the user-driven firm, "everyone can codevelop the software and participate in its further development." This means that the firm "allows everyone to advance and improve the software." Participants in the selectively open condition, in contrast, were informed that for the user-driven firm "only selected people can codevelop the software and participate in its further development." This means that the firm "only allows selected people to advance and improve the software." This latter manipulation allows us to formally test H3: whether the preference for user-driven firms will be attenuated in case of selectively versus fully open business models. Thus, we implemented a 2 (firm philosophy: Firm A user-driven versus Firm A designer-driven) \times 2 (level of openness of user-driven firm: completely versus selectively) between-subjects design. After having been exposed to the firm background information, participants completed product preference ($\alpha = 0.95$) and firm identification ($\alpha = 0.96$) measures that paralleled measures used in previous studies. As control measures, we included items to capture subjective product attribute perceptions (see the supplemental material); similar to Study 2, we find that the moderated mediation analysis reported below is robust to the inclusion of these measures as covariates (i.e., different attribute perceptions do not constitute an alternative explanation).

6.3. Findings and Discussion

6.3.1. Product Preference. We first ran a 2 (firm philosophy: Firm A user-driven versus Firm A designer-driven) \times 2 (level of openness of user-driven firm: completely versus selectively) ANOVA with product preference as the dependent variable. A significant effect for the firm philosophy factor ($F_{1,212} = 5.87$, $p < 0.05$) and an insignificant effect of the openness factor ($F < 1$, NS) are identified. As predicted, we also found a significant interaction effect between the two factors ($F_{1,212} = 7.12$, $p < 0.01$). Supporting H3, in the

completely open condition we find that if Firm A was described as a user-driven firm, respondents demonstrated a significantly stronger preference for Firm A's software ($M_{\text{User A}} = 0.27$) than if Firm A was described as a designer-driven firm ($M_{\text{Designer A}} = -0.37$; $F_{1,212} = 12.98$, $p < 0.001$). However, in the selectively open condition, we do not find a significant difference in product preference as a function of Firm A's market philosophy ($M_{\text{User A}} = 0.02$, $M_{\text{Designer A}} = 0.06$; $F < 1$, NS).

6.3.2. Firm Identification. A 2 \times 2 ANOVA on firm identification also produced a significant interaction ($F_{1,212} = 9.67$, $p < 0.01$), in addition to a main effect of the firm philosophy factor ($F_{1,212} = 11.04$, $p < 0.01$), and a nonsignificant main effect of the openness factor ($F < 1$, NS). Follow-up contrasts reveal that, in the completely open condition, participants have a significantly higher identification with Firm A if described as a user- versus designer-driven firm ($M_{\text{User A}} = 4.72$, $M_{\text{Designer A}} = 3.47$; $F_{1,212} = 20.70$, $p < 0.001$). In the selectively open condition, however, firm identification did not differ as a function of the market philosophy manipulation ($M_{\text{User A}} = 4.19$, $M_{\text{Designer A}} = 4.15$; $F < 1$, NS).

6.3.3. Moderated Mediation. A mediation model (firm philosophy \rightarrow firm identification \rightarrow product preference) moderated by the openness factor reveals that the interaction between firm philosophy and openness can be explained through firm identification ($CI_{95\%}$: 0.06, 0.27). Firm identification mediates the path from firm philosophy to product preference in the completely open condition ($CI_{95\%}$: 20, 0.50), but not in the selectively open condition ($CI_{95\%}$: -0.14, 0.16).

6.3.4. Discussion. Study 3 extends the previous studies in an important way. Although Study 2 looked at individual differences among observing consumers and participating users to identify meaningful moderators for our social identification account, Study 3 tested whether characteristics specific to the user-driven firm itself might moderate the effects studied. We find that consumers' preference for user-driven firms is moderated by the openness of the underlying firm's business model; the effects are attenuated if the user-driven firm is selectively rather than fully open to participating consumers (H3). This indicates that a lack of openness prevents user identification with the firm from materializing and thus provides additional evidence that social identification is the underlying process that motivates our effects.

7. General Discussion

7.1. Summary, Theoretical Contributions, and Substantive Implications

Companies are increasingly drawing on their user communities to generate promising ideas for new

products, which are then marketed as user-designed products to the broader consumer market. In the course of three studies, we document a “user-driven philosophy effect”: nonparticipating, observing consumers prefer to buy from user- rather than designer-driven firms because of an increased identification with the firm. We demonstrate that a firm sees a significant and often substantial increase in preference if the firm is portrayed as pursuing a user- versus designer-driven market philosophy.

Importantly, we experimentally disentangle our effect from existing explanations, including systematic differences in objective product characteristics and subjective perceptions related to the firm. Instead, we take a perspective that looks to the consumers themselves to understand why a preference for user-driven firms exists. Utilizing social identity theory as a conceptual base, we contend that the attributions made by observing consumers with respect to the user-driven firm activate a user identity that stimulates feelings of empowerment through a vicarious experience shared with the user community. Consumers identify with user-driven firms because of the affinity they feel with user-designers, although they themselves have not participated in the firm’s value creation process. The identification with the company, which manifests itself through this connection to individuals in the design process, is shown to explain consumers’ preference for user-driven firms.

Our social identity account further allowed us to study important boundary conditions that have not been addressed previously; the related findings offer important contributions to theory and practice. First, we find that if consumers feel dissimilar to participating users, the effects are attenuated. This happens, for example, when the community differs from consumers along demographic characteristics such as gender (Study 2). Comparing the user-designer community with the broader potential customer base can guide firms in identifying the most promising targets of observing consumers (i.e., consumers who are most similar to the user-designer community). Second, the impact of a user-driven philosophy is attenuated if the firm’s business model is only selectively versus fully open to consumers. If only selected users are invited to cocreate value with the firm, observing consumers do not appear to identify themselves with participating users and therefore feel less connected. As a result, consumers do not favor the company’s products over ones produced by a designer-driven firm. The identification of this moderating influence speaks to the role the firm itself can have in shaping the user-driven philosophy effect identified.

The documentation of the firm’s user-driven philosophy effect is not only of theoretical interest but also of substantive value. Indeed, our findings offer direct

implications for managers of user-driven firms who are interested to learn how to effectively communicate with their potentially large customer base of observing consumers. In short, managers should activate consumers’ user identities and stimulate the notion that it could have been observing consumers themselves who coshaped the product. Consider Threadless as a practical example. Here, marketers already accompany every T-shirt shipped with a greeting card that makes observing consumers feel personally included: “You are Threadless. You make the ideas. . . . you’re why we exist. . . . Make Great Together.” Similarly, McDonald’s promotes its “my burger” initiative, featuring user-created burgers, with the slogan “From you, for you!”

7.2. Limitations and Future Research

There are several limitations that might stimulate future research. First, our studies mostly captured only product preference as an outcome variable. Follow-up research might explore important alternative outcome variables such as consumers’ *future* purchase behavior. Will a firm’s market philosophy, for example, also affect customers’ long-term loyalty? Increased company identification suggests that this might indeed be the case (Park et al. 2010); stronger self-brand connections might positively affect the extent to which customers remain behaviorally “closer” to the underlying firm by more frequently screening the company’s new products, visiting their stores more often, and purchasing their products more frequently, for example. Furthermore, would consumers recommend a firm practicing this philosophy and its product to others? Such effects are not unlikely, given that a firm’s market philosophy can affect the extent to which consumers could identify with the underlying firm (i.e., higher levels of company identification might positively influence word-of-mouth communications; see Park et al. 2010).

Another potentially important question centers on for what type of customer the user-driven philosophy effect might be particularly strong, i.e., what customer segments might be more versus less responsive to user-driven firms. One such segmentation variable might be consumers’ economic conservatism/liberalism, which can be described as the ideological belief system that embodies the endorsement of economic and social inequality/equality (e.g., Eckhardt 1991). One could argue, for example, that conservatives might identify themselves less with the ordinary, broad market of users; i.e., being a user might not be a natural part of their social identity, so they might not categorize themselves as “average users.” Observing a user-driven firm therefore might not activate a user-identity.

Although we have identified an important boundary condition regarding the characteristics of the business model (open versus closed), future research might look to identify additional contingency factors that would

fully inform managers on where the user-driven philosophy effect might replicate versus not. For example, in our work we chose consumer products that are easily accessible to users for design and modification (apparel, cereal, and software). However, would more technical and/or industrial product categories (e.g., car brakes, medical devices) also provide possibilities for a user-driven effect? Future research should explore this possibility. The social identity mechanism identified might also be more pronounced in product categories that are associated with higher identity relevance. For example, the preference effect might be stronger for symbolic products, such as T-shirts, that are used to communicate desired identities to others. Finally, is there a competitive advantage to the first firm in an industry that adopts an open, user-driven business model? Would follower companies still benefit from a user-driven market philosophy? How would this affect the positioning of the first mover? Answers to these and related questions will help us to more fully understand the new role users play in the marketplace and its broader implications for consumer behavior and marketing.

Supplemental Material

Supplemental material to this paper is available at <http://dx.doi.org/10.1287/mnsc.2014.1999>.

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