

The Psychological Effects of Empowerment Strategies on Consumers' Product Demand

Companies have recently begun to use the Internet to integrate their customers more actively into various phases of the new product development process. One such strategy involves empowering customers to cooperate in selecting the product concepts to be marketed by the firm. In such scenarios, it is no longer the company but rather its customers who decide democratically which products should be produced. This article discusses the first set of empirical studies that highlight the important psychological consequences of this power shift. The results indicate that customers who are empowered to select the products to be marketed show stronger demand for the underlying products even though they are of identical quality in objective terms (and their subjective product evaluations are similar). This seemingly irrational finding can be observed because consumers develop a stronger feeling of psychological ownership of the products selected. The studies also identify two boundary conditions for this "empowerment–product demand" effect: It diminishes (1) if the outcome of the joint decision-making process does not reflect consumers' preferences and (2) if consumers do not believe that they have the relevant competence to make sound decisions.

Keywords: empowerment, customer integration, willingness to pay, psychological ownership, new product development

Threadless, a Chicago-based fashion start-up, markets new T-shirt designs on a weekly basis. Unlike many other firms, it is not the company that determines the specific designs to be marketed but rather its customers. Threadless has built a strong user community that rates the attractiveness of new design ideas online every week, with each design evaluated by 1500 users on average. The highest-rated T-shirts finally make their way to the shelves (Ogawa and Piller 2006). A similar product selection strategy is also pursued by Muji, a Japanese manufacturer of consumer goods. Muji invites its avid customers to evaluate the attractiveness of new product concepts, and only concepts that receive a substantial number of customer preorders ("binding votes") are ultimately integrated into one of its product lines (Ogawa and Piller 2006).

Similar initiatives have been implemented at companies across various industries, including Mountain Dew, where

consumers voted at DEWmocracy.com to decide on a new flavor for its soft drink to be sold on a permanent basis; Dell, where consumers put forth a request for Linux at Ideastorm.com and Dell responded by providing the Linux operating system on certain models in its PC fleet; M&M's, which succeeded in recruiting more than ten million consumers to vote on the new M&M color in 2002; and Fiat, which successfully launched a new model of the traditional Cinquecento car, involving customers from the definition of its design options to the creation of the advertising campaign. Even political parties have begun to integrate users directly into their decision-making processes. For example, Austria's Green Party has empowered its user base to decide democratically on the election posters to be used in upcoming campaigns (Gruene.at).

In contrast to traditional market research, in which ad hoc input from selected customers is not binding on the firm, these organizations have systematically empowered their customer base. In more general terms, they have shifted power (i.e., that of product selection) to their customers. For the purposes of this research, we define empowerment as a strategy firms use to give customers a sense of control over a company's product selection process, allowing them to collectively select the final products the company will later sell to the broader market.

The rationale behind such "empowerment-to-select" strategies—in tandem with empowerment in various other phases of the new product development (NPD) process, including idea generation—is obvious: Such strategies should enable companies to develop better products at lower cost and risk (e.g., Dahan and Hauser 2002; Fuchs

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and Schreier 2010; Kalaigianam and Varadarajan 2006; Nambisan 2002; Nambisan and Nambisan 2008; Ogawa and Piller 2006; Prahalad and Ramaswamy 2000; Prandelli, Verona, and Raccagni 2006; Von Hippel 2005).

In this article, we argue that this view of empowerment is only one side of the coin, and we aim to tackle it from a different perspective that goes beyond merely NPD-related arguments. In particular, we aim to analyze some of the psychological consequences for customers who are empowered to select the products a company should market. In short, we propose an “empowerment–product demand” effect: Controlling for the products’ objective quality, we hypothesize that empowered customers will show stronger demand for the underlying products than nonempowered customers. Note that we conceptualize the dependent variable, “demand,” at the level of the individual customer rather than at the aggregate market level; for the sake of simplicity, however, we use the term “demand” instead of “individual demand.”

At first glance, our prediction seems to conflict with standard economic theory because a rational actor should not exhibit increased demand when the expected product benefit (and, thus, its value) is identical. However, we predict this seemingly irrational effect because the underlying products might be psychologically enriched by the customer’s participation in the product selection process (empowered customers will assume more psychological ownership of the outcome). Across four experiments ($n = 875$), we find strong support for our proposed empowerment product demand effect (with demand being measured in various ways, including purchase intentions and willingness to pay [WTP] using real auctions). We also find that psychological ownership is an appropriate process variable because it fully mediates the incremental demand observed among empowered customers (Study 2). Finally, we identify two important boundary conditions: The incremental demand diminishes (1) if the outcome of the joint decision-making process does not reflect consumers’ preferences (Study 3) and (2) if consumers do not believe that they have the relevant competence to make sound decisions (Study 4).

Theory and Hypotheses

Background and Overview

In recent years, it has been argued that customers are gaining power because markets are becoming more transparent, competition is increasing, and consumers can easily retrieve information about potential suppliers and their products from the Web (e.g., Harrison, Waite, and Hunter 2006; Prahalad and Ramaswamy 2000). In short, it is assumed that customers are empowered because they have more information and choice. This provides increased power in relation to suppliers, thus affording customers more autonomy (Harrison, Waite, and Hunter 2006; Wathieu et al. 2002). From an economic perspective, this classic view of empowerment is perceived as a benefit because consumers’ needs should be better satisfied by the marketplace (Kreps 1979).

Overall, this perspective on empowerment focuses on the market level (e.g., how many suppliers are in the mar-

ket, how accessible the information is to consumers). However, it does not affect the fundamental nature of interactions between an individual firm and its customers (firm-level perspective). From the latter point of view, power has traditionally been concentrated on the supplier side, and companies have typically been exclusively responsible for deciding which products should be marketed (Samli 2001). Although companies have listened closely to the voice of the customer, power and control have been strictly centralized because the companies have ultimately had the final word on what should be produced (Pitt et al. 2006).

Consumers do not always accept this imbalance of power. Indeed, they are frequently observed to complain that companies exert too much control over their daily lives, and many have begun to strive for more active participation in the marketplace (Bernstein et al. 2000; Holt 2002). Although management scholars have long advocated the active integration of customers as almost “partial employees” in firms’ decision-making processes (Mills and Morris 1986; Ulrich 1989), empowerment tendencies have only recently reached the firm level on a broad basis. This shift has been facilitated by the Internet, which enables companies to build strong communities to integrate thousands of customers from all over the world (Ogawa and Piller 2006).

As we noted previously, the main arguments in favor of empowerment strategies in NPD have so far been tied to the “objective” nature of the products (better products at lower cost and risk). In addition, scholars have begun to recognize that shifting certain types of power to consumers may also have “indirect” effects. For example, Nambisan and Nambisan (2008, p. 53) point out that empowerment strategies can “offer important (and often hidden) benefits beyond the innovation outcomes.” In a similar vein, Sawhney, Verona, and Prandelli (2005) note that empowered customers may feel a closer relationship with the underlying products and therefore might be more willing to buy them. We use these ideas as a starting point for our research. In what follows, we begin by defining the notion of empowerment for our research context, and then we develop the proposed empowerment–product demand effect.

Empowerment: A Definition

In line with the previous discussion, Taylor and colleagues (1992) distinguish between empowerment under the market approach (allowing customers to choose between alternatives offered by the market) and empowerment under the democratic approach. Regarding the latter, empowerment is viewed as a “(co)creative force that structures the possible field of interaction and exchange of free agents” (Denegri-Knott, Zwick, and Schroeder 2006, p. 961). In particular, firms might use empowerment as a strategy to give their customers a voice in—and an opportunity to change—a company’s general offerings (Ramani and Kumar 2008). Consistent with this democratic approach, we define empowerment as a strategy firms use to give customers a sense of control over its product selection process, allowing them to collectively select the final products the company will later sell to the broader market.

Note that such empowerment-to-select strategies are related to but conceptually and practically distinct from

other Web-enabled strategies, such as mass customization, in which every single customer is empowered to design his or her own product online, which the manufacturer then produces to order. Here, the company sells one product per customer. This strategy pays off if the extra cost of producing single-unit quantities is offset by the extra value customized products deliver to customers (Franke, Keinz, and Steger 2009; Franke and Piller 2004; Franke and Schreier 2008). On the one hand, it could be argued that mass customization is psychologically more powerful because customers design a unique product themselves, which gives them stronger feelings of accomplishment (“I designed it myself”) (Franke, Schreier, and Kaiser 2010) than merely voting for the most preferred products from a set of standards created by the company. On the other hand, the individual solutions are not put into full-scale production, and customers do not affect the company’s actions beyond the individual transaction. We believe that this latter aspect in particular might bring about the unique outcomes of empowerment-to-select strategies.

The Empowerment–Product Demand Effect

Our key hypothesis is that empowered customers will show stronger demand for the underlying products than non-empowered customers (measured in terms of WTP and purchase intentions). We expect this effect to arise even if we control for the objective properties of the products. We also assume that there is not a certain magic at work that changes the consumers’ subjective evaluations of the underlying products (i.e., that empowered customers evaluate the underlying products more favorably than nonempowered customers). Instead, this prediction can be derived because the underlying products might be psychologically enriched by the customer’s participation in the product selection process. Empowered customers may take on more psychological ownership of the outcome, which in turn might increase demand.

First, we assume that empowerment-to-select strategies allow customers to experience the feeling of “having an impact” (the direct psychological outcome of empowerment strategies). Perceived impact refers to the degree to which a customer perceives his or her own ability to influence certain outcomes (Spreitzer 1995). It is plausible that empowered customers believe that they have a stronger impact on a company and its actions than nonempowered customers, who have nearly no say in a firm’s product selection process.

Second, because of customers’ ability to participate in the decision-making process (and thus have an impact), we expect empowered customers to associate a certain “trophy component” with the underlying product (Wathieu et al. 2002, p. 301). In particular, increased beliefs of self-efficacy (a “can-do” attitude) and increased feelings of responsibility might lead to stronger feelings of ownership (Pierce, Kostova, and Dirks 2001). This is consistent with Ulrich (1989, p. 24), who argued two decades ago that firms that empower customers in NPD (e.g., by enabling them to help choose the products to be launched) benefit from positive psychological outcomes, such as the customers’ “immediate commitment to the finished product.” This is

also consistent with the literature on empowerment in general: When people are allowed to participate actively in decision making and perceive that they may influence the outcome, the final decisions become “their decisions” (Agarwal and Ramaswami 1993; Hunton 1996). In other words, people assume psychological ownership of such decisions because they are partly responsible for the outcome, and this tends to elicit positive feelings (Barki and Hartwick 1994; Hui and Bateson 1991). Psychological ownership, which may exist in absence of legal ownership, refers to “the state in which individuals feel as though the target of ownership or a piece of that target is ‘theirs’” (Pierce, Kostova, and Dirks 2003, p. 86). Thus, it manifests in a certain relationship perceived between an individual and an object (i.e., there is a psychological link between the self and the object; Furby 1978; Pierce, Kostova, and Dirks 2001).

Finally, it is well established that such feelings of ownership may increase the perceived value of the object (“endowment effect”; Thaler 1980). This holds true for both legal and psychological ownership. In short, it is argued that ownership triggers feelings of loss, which leads to a situation in which sellers demand and buyers pay higher prices. Peck and Shu (2009) have recently shown that consumers who feel a strong sense of psychological ownership of products exhibit stronger demand for them (measured in terms of WTP). On the basis of this idea, we expect empowered customers to show stronger demand for the underlying products than nonempowered customers because participation in the product selection process will induce strong feelings of psychological ownership.

- H₁: Empowered customers (who participate in the new product selection process) will show stronger demand for the underlying final products than nonempowered customers (who do not participate in the new product selection process [measured in terms of WTP and purchase intentions]).
- H_{2a}: Empowered customers (who participate in the new product selection process) will experience higher levels of psychological ownership of the underlying final products than nonempowered customers (who do not participate in the new product selection process).
- H_{2b}: The empowerment–product demand effect (H₁) can be explained (is mediated) by psychological ownership (H_{2a}).

Study 1

Method

Design and procedure. In Study 1, we test whether empowerment leads to higher product demand (H₁). We devised a one-factor between-subjects design with one experimental and three control groups. On the basis of real-world examples (Threadless), we chose to study T-shirts as the underlying product category. A total of 264 undergraduate students from four parallel classes (i.e., the same subject and year of study) at a European university participated in our experiment. The four classes were randomly assigned to the treatment group or to one of three control groups.

At Time 1, participants of all four groups were asked to participate in a real-world market research study for a new foreign fashion brand specializing in T-shirts. The brand name was not revealed, and participants were informed that the outcome of the study would help the company decide whether and how it should enter the market in question. Participants were told that one of the unique things about this brand is that the company can draw on a strong and large network of international designers who submit new T-shirt designs every week. On this basis, the company markets five new limited-edition T-shirts per week. After receiving these concrete and vivid instructions, participants were shown five sample T-shirts that had been selected for production in the recent past and then were asked to complete a short initial questionnaire containing items related to their evaluation of the products (based on the five sample T-shirts), their overall evaluation of the company, and their income. We use these control variables to analyze whether our randomization procedures were effective. If there are no related significant differences between groups, we can assume that any differences in the dependent variables can be attributed to our manipulation rather than to differing sample characteristics.

The initial questionnaire was followed by group-specific information (treatment) related to the company's process of selecting new T-shirts. Participants in Group 1 ($n = 76$) were exposed to the empowerment-to-select treatment. They were informed that the company regularly asks its user community to rate the set of potential T-shirts in terms of attractiveness. Each week, the company markets the five T-shirts that receive the best scores. Participants were then instructed to look at 20 prototype T-shirts (of which only 5 would be marketed in the coming week) and to participate in the T-shirt rating task. In this way, the members of Group 1 actively participated in the selection process for the next week's T-shirts; they and the community jointly decided which T-shirts would make their way to the shelves. The 20 T-shirt designs were taken from Threadless and were delivered to the participants on color printouts. Participants were instructed to look at all the T-shirts first and then to complete the rating questions provided immediately after each T-shirt (single-item question on a five-point scale: 1 = "I do not like this T-shirt at all," and 5 = "I like this T-shirt very much").

Group 2 ($n = 60$) was the first control group. Participants in this group received the same information as those in Group 1 (the company fosters selection empowerment by asking its user community to rate 20 prototype T-shirts, of which only 5 are marketed in the ensuing week). However, the participants in this group were not empowered to participate in the selection process (they were not shown the 20 prototype T-shirts). From a practical perspective, contrasting Groups 1 and 2 constitutes a realistic comparison. Participants in Group 1 actively participated in the selection process for the new T-shirts ("you and the community decide"), and participants in Group 2 did not ("the community decides"). If our hypothesis is correct, we should observe higher scores for our dependent variable among participants in Group 1 than for those in Group 2 (measured at Time 2).

However, there are alternative theoretical explanations for potential differences in our dependent variable (product demand) between these two groups. Most important, the participants in Group 1 have seen (and evaluated) the 20 prototype T-shirts (Time 1), whereas the participants in Group 2 have not. Theoretically, Group 1 might show stronger demand for the underlying products (Time 2), not because of the specific empowerment treatment but simply because of repetition. They have seen the T-shirts before (Time 1), and therefore they might like them more because of mere exposure effects or increased processing opportunities, to name just two examples (Obermiller 1985). To rule out these alternative explanations, we added a third group. Participants in Group 3 ($n = 73$) received the same treatment as those in Group 2 but were exposed to the 20 prototype T-shirts ("Now you can have a look at the 20 prototype T-shirts, only 5 of which will be produced next week"). Unlike the participants in Group 1, however, they were not empowered to participate in the selection process (i.e., they were not asked to rate the T-shirts). If our theory is correct, (1) we should observe differences in our dependent variable between Groups 1 and 3, and (2) we should not observe any differences between Groups 2 and 3. This would rule out the alternative explanation of potential differences between Groups 1 and 2.

Finally, we added Group 4 ($n = 55$) to allow for a comparison between empowerment to select (Group 1) and traditional participation in market research (in which the company uses customer input but still has the final word on what should be produced). This group is an important complement because research has also shown that mere participation in market research may be associated with favorable consumer behavior, including increased product demand (Borle et al. 2007). Thus, an alternative explanation for differences observed between Group 1 and Groups 2 and 3 might simply be that the company solicits any product-related feedback (market research) from participants, not the specific empowerment-to-select treatment.

Participants in Group 4 were informed that the company regularly seeks a great deal of customer input through ongoing market research involving its user community, which helps the company select the T-shirts to be marketed. As in Group 1, participants were instructed to look at the 20 prototype T-shirts (of which only 5 would be marketed in the ensuing week) and to participate in the T-shirt rating task. Participants looked at all the T-shirts first and then completed the rating questions immediately after each T-shirt. We used the same single-item question as in Group 1. The only difference between Groups 1 and 4 is that participants in the former group were aware that they and the community would jointly decide which T-shirts should make their way to the shelves, whereas participants in the latter group were aware that their input (together with the input from the community) would be used by the company but that the company ultimately made the decision (market research). Thus, if our predictions hold true, participants in Group 1 should perceive that they have a greater impact and thus should have a stronger sense of psychological ownership of the outcome. Consequently, they should exhibit stronger demand for the relevant products than participants

in Group 4. This would also be consistent with existing literature, which has found that direct (Group 1) but not indirect (Group 4) participation in decision making increases people's sense of impact and brings about favorable behavior among the populations studied (Rubenowitz, Norrgren, and Tannenbaum 1983).

After the individual treatment, participants in all four groups were informed that their input would then be transferred to the company and that they would see the new five T-shirts to be marketed by the company the following week. One week later (Time 2), the five new T-shirts were presented to participants on color printouts (all groups were exposed to the same T-shirts). We opted for a realistic selection process by choosing the five designs that received the highest scores based on the ratings from Groups 1 and 4. After inspecting the selected T-shirts, participants were asked to complete a short initial questionnaire containing items that measure perceived impact (our manipulation check of empowerment) and to evaluate the final selection of T-shirts. Finally, participants were given the opportunity to bid on one of the five T-shirts in the course of a real auction. We did this to capture the consumer's demand for the underlying products, which we operationalized in terms of WTP in Study 1.

Measures. In the first questionnaire (Time 1; before treatment), we measured the control variables of product evaluations (based on the five sample T-shirts), company evaluations, and income. We measured product evaluations using two five-point semantic differential scales ("Please evaluate these T-shirts") with the anchors "bad" (1) and "good" (5) and "dislike" (1) and "like" (5) (taken from Edell and Keller 1989). The alpha for the scale is .82. We measured company evaluations using the single item "I like this company," where 1 = "strongly disagree" and 5 = "strongly agree" (Hui, Dubé, and Chebat 1997). Finally, we measured income ("How high is your disposable income per month?") on a six-point scale (1 = <€200, and 6 = >€600).

In the second questionnaire (Time 2; before the bidding task), we measured the participants' product evaluations (based on the final five T-shirts) using the same measures as in the first questionnaire ($\alpha = .84$). We measured perceived impact using two items adapted from Spreitzer (1995) ($\alpha = .80$): "I see that I have some control in determining which T-shirts will be produced by this company," and "I have some influence in determining which products will be sold by this company" (1 = "strongly disagree," and 5 = "strongly agree").

Finally, we operationalized product demand as WTP in Study 1 and measured it using incentive-compatible BDM (Becker, DeGroot, and Marschak 1964) auctions. Participants were told that they could participate in a real auction to win their most preferred of the five new T-shirts, and they were instructed to think carefully about their maximum WTP for their selection. Participants were also informed that one week after completion of the study, a random card (stating a random price) would be drawn from a prepared urn to determine the price to be paid. If their bid was higher than the price indicated on the card, they purchased the

T-shirt, but only at the price indicated on the card. However, if their bid was lower than the price indicated on the randomly drawn card, they could not purchase the T-shirt. Thus, our dependent variable is not hypothetical; it constitutes real economic behavior. Furthermore, this procedure ensures theoretical incentive compatibility. Because prices are exogenous to participants' WTP, their dominant strategy should be to reveal their "true" maximum WTP. To avoid anchoring distortion, participants were not informed about the price range shown on the cards (Wertenbroch and Skiera 2002). They were then provided with a fictitious example to help them learn the auction procedure. Finally, participants indicated their chosen T-shirt (of the final five T-shirts shown to them at Time 2) and submitted sealed, binding bids (confirmed by their signatures; there was no minimum or maximum WTP). The participants were not aware of one another's bids.

Findings and Discussion

Control variables. We employed a series of analyses of variance (ANOVAs), including post hoc tests (least significant difference), to analyze whether groups differ with regard to our control variables (see Table W1 in the Web Appendix at <http://www.marketingpower.com/jmjan10>). First, we find that the four groups did not exhibit significant differences in their product evaluations of the sample T-shirts, company evaluations, and income (all measured before treatment at Time 1). This means that any differences in the dependent variables can be attributed to our manipulation rather than differing sample characteristics.

Second, we find that there are no significant differences between groups with regard to the participants' evaluations of the final selection of T-shirts (measured after treatment at Time 2). This is important because it might be argued that mere differences in taste between the groups resulted in different evaluations of the final T-shirts and may have generated differences in our dependent variable (WTP). More important, this finding provides initial evidence that the alternative explanations arising from repetition are not at play: Although the participants in Group 1 had already seen (and evaluated) the T-shirts at Time 1, they did not evaluate them more favorably than participants in Group 2, who had not been exposed to the T-shirts before. Similarly, the product evaluations of participants in Group 2 are not significantly lower than those of participants in Groups 3 and 4 (both of whom had seen the products before).

Manipulation check. Next, we find that our treatment was effective because empowerment to select drives the consumers' perceived impact on the company's product selection process (see Table 1). Participants in Group 1 ("you and the community decide") reported significantly higher levels of perceived impact ($M = 3.54$) than participants in Group 2 ($M = 2.83$), Group 3 ($M = 2.89$), and Group 4 ($M = 2.78$) ($p < .001$; post hoc tests).

Key findings. We find support for H_1 : Empowerment to select reinforces the consumer's demand for the underlying products, measured in terms of WTP (Table 1). Participants in Group 1 were willing to bid significantly more for their chosen T-shirts ($M = 15.41$) than participants in Group 2

TABLE 1
Manipulation Check and Findings (Study 1)

	Group 1 (n = 76)	Group 2 (n = 60)	Group 3 (n = 73)	Group 4 (n = 55)
Task (Time 1)	<ul style="list-style-type: none"> • “Select the best T-shirts” • (“You and the community decide”) 	<ul style="list-style-type: none"> • — • (“The community decides”) 	<ul style="list-style-type: none"> • “Have a look at the T-shirts” • (“The community decides”) 	<ul style="list-style-type: none"> • “Select the best T-shirts” • (“Market research”)
Dependent Variables (All at Time 2)	M (SD)	M (SD)	M (SD)	M (SD)
Perceived impact ^a	3.54 (.86)	2.83 (.88)	2.89 (.86)	2.78 (.87)
WTP ^b	15.41 (12.72)	9.25 (10.14)	10.33 (12.50)	9.56 (9.18)

^aANOVA: F-value = 11.925 ($p < .001$).

^bANOVA: F-value = 4.506 ($p < .01$).

($M = 9.25$), Group 3 ($M = 10.33$), and Group 4 ($M = 9.56$) ($p < .01$; post hoc tests). Because empowerment increases WTP by nearly 50%, the size of this effect can be considered substantial. It is also worth noting that there are no significant differences among the three control groups. Together with the finding that there are no significant differences among groups with regard to their evaluations of the final T-shirts, we can rule out the alternative explanations of higher WTP in Group 1 due to repetition or mere market research effects. Notably, these findings also highlight that mere affect-based processes are unlikely to explain the main effect on product demand (empowerment → positive mood → more favorable product evaluation → higher product demand).

Study 2

Objectives and Rationale

In Study 2, our main objective is to test whether the effect of empowerment on product demand can be explained by psychological ownership (H_{2a} and H_{2b}). In addition, we aim to broaden the set of dependent variables to shed more light on the product-related consequences of empowerment. It has been argued, for example, that “psychological ownership for a particular target may also promote feelings of responsibility that include feelings of being protective, caring, and nurturing, and the proactive assumption of responsibility for the target” (Pierce, Kostova, and Dirks 2003, p. 100). Furthermore, activities such as displaying, talking about, and enjoying the products were noted as particularly relevant to objects for which people feel strong psychological ownership (see Pierce, Kostova, and Dirks 2003). Therefore, we expect that if empowerment causes an increase in psychological ownership of the outcome (i.e., the selected products), it will have a positive impact not only on the consumer’s demand but also on other variables, such as positive word of mouth (WOM), consumers’ enjoyment of using the product, and their willingness to take care of and, if necessary, verbally defend the product in public. We also aim to increase the external validity of the findings of Study 1 by choosing a more realistic setting (online versus offline), by involving a more representative sample (consumer panel versus students), and by varying the operationalization of

product demand (purchase intentions and hypothetical WTP versus WTP using BDM auctions).

Method

Design and procedure. We again used T-shirts as the underlying product category. Participants ($n = 128$) were recruited from a European online consumer panel and were randomly assigned to groups. We devised a one-factor between-subjects design with one experimental and one control group. Similar to Study 1, participants in Group 1 ($n = 65$) were exposed to the empowerment-to-select treatment. Group 2 ($n = 63$)—our control group—was identical to the market research group in Study 1 (Group 4). Because we did not identify any relevant differences between the control groups in the previous study, we included only one control group in Study 2. We chose this control group because it constitutes the hardest benchmark for our treatment group with regard to the main effect on product demand.

We employed the same procedures as those used in Study 1, with the following exceptions: First, as noted previously, we carried out Study 2 online (instead of offline). Second, participants evaluated 16 T-shirts at Time 1, of which the 4 highest-rated T-shirts were selected for presentation at Time 2. Third, we came back to participants only after two weeks. These minor changes may provide additional insights for the purpose of generalization.

Measures. In the first questionnaire (Time 1; before treatment), we employed the same measures as previously to capture the control variables of product evaluations (based on the five sample T-shirts; $\alpha = .89$), company evaluation, and income. Because of the different sample, however, we changed the anchors for the monthly income measure ($1 = <€200$, and $6 = >€1,800$).

In the second questionnaire (Time 2; after participants inspected the final selection of T-shirts), we employed the same items from Study 1 to measure the participants’ perceived impact (manipulation check; $\alpha = .69$) and product evaluations ($\alpha = .84$). We measured psychological ownership using six items (five-point scales; $1 =$ “strongly disagree,” and $5 =$ “strongly agree”; adapted from Van Dyne and Pierce 2004; see also Peck and Shu 2009): “Although I do not legally own these T-shirts yet, I have the feeling that

they are ‘my’ T-shirts”; “The selected T-shirts incorporate a part of myself”; “I feel that these products belong to me”; “I feel connected to these T-shirts”; “I feel a strong sense of closeness with these products”; and “It is difficult for me to think of these T-shirts as mine” (reversed); $\alpha = .95$.

As noted previously, we expect that if empowerment has an effect on psychological ownership, it will consequently affect other product-related outcome variables as well. Therefore, we also measured the participants’ positive WOM intentions, their enjoyment of using the product, and their willingness to take care of and, if necessary, to defend the product in public (all items are measured on five-point scales; 1 = “strongly disagree,” and 5 = “strongly agree”). We measured positive WOM using three items (adapted from Carroll and Ahuvia 2006; $\alpha = .90$): “I would recommend the products in this collection to my friends,” “I would ‘talk these T-shirts up’ to others,” and “I would try to spread the word about these products.” For the other measures, we used the following single items: “Compared to similar T-shirts from other firms, it would be more fun to wear these T-shirts in public”; “If I owned one of these T-shirts, I would try to take better care of it than I normally would for similar clothes”; and “If someone said something bad about one of these T-shirts, I would be more likely to defend it verbally than other products.”

Because we were unable to employ WTP measurements using BDM auctions because of legal restrictions (selling products to the panel was prohibited), we measured product demand in terms of hypothetical WTP and purchase intentions. We measured WTP using the item “How much would you be willing to pay for your favorite T-shirt out of the four T-shirts selected?” (Jones 1975). For purchase intentions, we employed two measures. First, we used two five-point semantic differential scales (“Imagine you could now buy one of these T-shirts. Would you be interested in buying one?”) with the anchors “improbable/probable” and “unlikely/likely” (taken from Kirmani, Sood, and Bridges 1999; $\alpha = .91$; referred to as Measure 1). Second, we used the single item developed by Juster (1966). We used the preamble “How likely is it that you would buy one of these T-shirts?” (1 = “completely unlikely” [likelihood: 1%], and 10 = “almost certain” [likelihood: 99%]; referred to as Measure 2).

Finally, we added two items to measure the participants’ future loyalty intentions toward the focal company (“My loyalty to this firm would be high”; “In the future, I would prefer to buy products from this company”; 1 = “strongly disagree,” and 5 = “strongly agree”; based on Reynolds and Beatty 1999; $\alpha = .77$). We did this to explore whether empowerment also influences variables beyond the underlying products (and thus has longer-term effects).

Findings and Discussion

Control variables. A series of ANOVAs revealed that there are no significant differences between groups with regard to their evaluations of the sample T-shirts, company evaluations, and income (all measured before treatment at Time 1). Second, there are no significant differences between groups with regard to the participants’ evaluations of the final set of T-shirts (measured after treatment at Time

2; see Table W2 in the Web Appendix at <http://www.marketingpower.com/jmjan10>).

Manipulation check. Next, we find that our treatment was effective in this context because empowerment to select drives the consumers’ perceived impact on the company’s product selection process (see Table 2). An ANOVA reveals that participants in Group 1 (“you and the community decide”) reported significantly higher levels of perceived impact ($M = 3.75$) than participants in Group 2 (“market research”; $M = 3.10$; $p < .001$).

Key findings. First, we find support for H_{2a} (all findings are based on ANOVAs; see Table 2). Empowerment to select affects the consumer’s feeling of psychological ownership of the final set of T-shirts. Participants in Group 1 (“you and the community decide”) reported significantly higher levels of psychological ownership ($M = 2.86$) than those in Group 2 (“market research”; $M = 2.20$; $p < .001$). Second, participants in Group 1 ($M = 20.74$) indicated that they were willing to pay significantly more for the underlying products than participants in Group 2 ($M = 17.24$; $p < .05$). Similarly, participants in Group 1 reported significantly higher purchase intentions than participants in Group 2. This holds true for both measures (Measure 1: $M = 3.55$ versus $M = 3.16$; $p = .05$; Measure 2: $M = 5.71$ versus $M = 4.65$; $p < .05$). Thus, we replicate the findings from Study 1 (H_1). Together with the finding that there are no significant

TABLE 2
Manipulation Check and Findings (Study 2)

	Group 1 (n = 65)	Group 2 (n = 63)	Differences (ANOVA)
Task			
(Time 1)	<ul style="list-style-type: none"> • “Select the best T-shirts” • (“You and the community decide”) 	<ul style="list-style-type: none"> • “Select the best T-shirts” • (“Market research”) 	
Dependent Variables (All at Time 2)	M (SD)	M (SD)	F-Value (p-Value)
Perceived impact	3.75 (.71)	3.10 (.98)	18.905 (.00)
Psychological ownership	2.86 (1.01)	2.20 (1.02)	13.528 (.00)
Hypothetical WTP	20.74 (8.93)	17.24 (8.91)	4.828 (.03)
Purchase intention (measure 1)	3.55 (1.06)	3.16 (1.20)	3.873 (.05)
Purchase intention (measure 2)	5.71 (2.48)	4.65 (2.60)	5.414 (.02)
Positive WOM	3.65 (.94)	3.09 (1.09)	9.295 (.00)
Fun to wear	3.74 (1.09)	3.19 (1.16)	7.553 (.01)
Special care	3.31 (2.18)	2.75 (1.23)	6.562 (.01)
Verbal defense	3.12 (1.23)	2.22 (1.01)	20.458 (.00)
Loyalty intention	3.26 (.87)	2.75 (1.08)	8.619 (.00)

differences between groups with regard to their evaluations of the final T-shirts, these findings again highlight that mere affect-based processes are unlikely to explain the main effect on product demand.

Third, we find main effects on our alternative dependent variables. Empowerment to select leads to higher positive WOM intentions (Group 1: $M = 3.65$; Group 2: $M = 3.09$; $p < .01$). Participants in Group 1 versus those in Group 2 also indicated that they thought it would be more fun to wear the underlying T-shirt ($M = 3.74$ versus $M = 3.19$; $p < .01$), that they would take better care of it ($M = 3.31$ versus $M = 2.75$; $p < .05$), and that they would be more prepared to defend it verbally in public if necessary ($M = 3.12$ versus $M = 2.22$; $p < .001$). Finally, we find that empowerment significantly affects future loyalty intentions (Group 1: $M = 3.26$ versus Group 2: $M = 2.75$; $p < .01$). This suggests that empowerment produces favorable outcomes that go beyond the underlying products, a point we address in greater detail in the “General Discussion” section.

Fourth, we analyze whether psychological ownership is an appropriate process variable to explain the main effect of empowerment on product demand (H_{2b}) and on our alternative dependent variables. We test this hypothesis using analysis of covariance. If we run a model without any covariates, the treatment effect on WTP is significant ($p < .05$), as were the ANOVA findings we reported previously. However, if we add psychological ownership as a covariate to the model, the impact of the treatment becomes insignificant, and the effect of psychological ownership on WTP is highly significant ($p < .01$), suggesting full mediation. A Sobel test further reveals significant mediation ($z = 2.583$, $p < .01$). Thus, psychological ownership is an appropriate process variable for explaining the effect of empowerment on WTP. The results are robust if we replace WTP with purchase intentions (Sobel test for Measure 1: $z = 3.359$, $p < .001$; for Measure 2: $z = 3.414$, $p < .001$). We also find the same pattern for positive WOM ($z = 3.454$, $p < .001$) and the notions of “fun to wear” ($z = 3.696$, $p < .001$), willingness to take better care of the T-shirt ($z = 3.281$, $p < .01$), and verbal defense of the product ($z = 3.191$, $p < .01$).

Study 3

Objectives and Rationale

In Study 3, we address two issues of generalizability related to the proposed empowerment–product demand effect (H_1). First, we test this effect in a systematically different product category. Second, we analyze whether it depends on (or is moderated by) the outcome of the product selection task.

In addressing the first aspect, we assume that the product category examined in Studies 1 and 2 (Threadless T-shirts) (1) is self-expressive or delivers social value (i.e., such products help communicate the consumer’s social identity), (2) is highly hedonic in nature (i.e., purchased predominantly for pleasure and to satisfy experiential needs), and (3) is a category in which emotions/feelings are highly relevant to purchase decisions. Can our findings be generalized to categories that score lower on those dimensions? (For a more detailed discussion, see the “Pilot Study” section in

the Web Appendix at <http://www.marketingpower.com/jmjan10>.) To address this question, we chose breakfast cereals as a suitable product category for Study 3, especially because the pilot study revealed that cereals score lower than T-shirts in all three dimensions. This product domain is also worth investigating because cereals are nondurables, meaning that any potential empowerment benefits are short lived and may be sunk more quickly after the product is consumed. Finally, inspecting and evaluating new designs for T-shirts online may be more involving than choosing ingredients for cereal mixes (for which a perfect counterpart would be product tasting, which is not feasible online). In summary, studying such a systematically different product domain constitutes a potentially important complement to Studies 1 and 2.

Our second aim in Study 3 is to analyze whether the effects of empowerment on product demand depend on (or are moderated by) the outcome of the product selection task. In Studies 1 and 2, we opted for a realistic selection process (the highest-rated products at Time 1 were selected for the collection presented at Time 2). Thus, on average, participants in the treatment group (“you and the community decide”) saw their choices make it to the shelves; in other words, the general evaluations of the final products are relatively high in all groups. In reality, however, at least a minority of consumers may experience the opposite; that is, the products they rated unfavorably may “win,” or their evaluations of the final products may be relatively low (e.g., due to different preferences within the community).

In such situations, consumers will most likely develop less psychological ownership of the outcome because their feelings of responsibility and identification will be lower (“acts of claiming the nonowned as ‘mine’” should be less intense; Pierce, Kostova, and Dirks 2003, p. 87). This is in line with general psychology literature, which posits that if an outcome is produced jointly, people tend to claim less responsibility for a failure than for a success (“my products made it”; Wolosin, Sherman, and Till 1973). Thus, it is plausible that the effects of empowerment on product demand will diminish for such consumers because the outcome of the joint decision-making process does not reflect their ideas and preferences (Korsgaard, Schweiger, and Sapienza 1995). In other words, we expect that if the outcome of the product selection process does not match the participants’ preferences, product demand may not be higher among empowered than nonempowered customers. To explore this idea, we manipulate the outcome of the empowerment-to-select initiative, with one group exposed to the groups’ highest-rated (top) products and one exposed to the groups’ lowest-rated (flop) products.

Method

Design and procedure. In Study 3, we study breakfast cereals as a product category. We returned to the laboratory environment because we wanted to measure product demand using BDM auctions (WTP elicitation method) to maximize the generalizability of the main effect previously identified. Two hundred three undergraduate students from four parallel classes at a European university participated in the experiment (classes were again randomly assigned to

groups). We devised a two-factor between-subjects design. The two factors we manipulated were participation (“you and the community decide” versus “the community decides”) and the outcome of product selection (highest-rated [top] versus lowest-rated [flop] products).

Participants in Group 1 ($n = 59$) and Group 2 ($n = 50$) were exposed to the empowerment-to-select treatment. Group 3 ($n = 51$) and Group 4 ($n = 43$) were the equivalents of Group 2 in Study 1 (“the community decides”; participants were not empowered to participate in the selection process, and they were not exposed to the products at Time 1). We chose this control group (rather than the other two control groups in Study 1) mainly because any potential interaction effects related to the outcome (top versus flop products) should be highest in this control group (e.g., if flop products are selected, disappointment effects should be more similar between the treatment groups and Group 4 from Study 1; i.e., “market research”).

Otherwise, we employed the same procedures as in Study 1 with the following exceptions: First, participants were shown only one sample cereal mix (depicted on a color printout with verbal descriptions), which, as they were told, had recently been selected for production (before treatment). Second, at Time 1, participants in the treatment groups (Groups 1 and 2) were asked to evaluate 16 prototype cereal mixes (taken from the company MyMuesli.com) presented on color printouts (with detailed descriptions of the ingredients; each mix consisted of two types of grains and four additional ingredients [i.e., a combination of fruits and nuts]).

Third, one week later (Time 2), the three new cereal mixes were presented to participants. For Groups 1 and 3 (Groups 2 and 4), we chose the three mixes that received the highest (lowest) scores based on the ratings assigned by Groups 1 and 2 at Time 1 (an example of a top [flop] mix is chocolate cereal mix, corn flakes, macadamia nuts, green raisins, coconut rasps, and strawberries [classic corn mix, soy flakes, peanuts, raisins, figs, and raspberries]). Finally, participants were given the opportunity not only to bid on one of the three cereal mixes in the course of real BDM auctions but also to participate in a behavioral lottery to win either one of the cereal mixes or an equivalent amount of money (as an alternative measure to capture product demand).

Measures. In the first questionnaire (Time 1; before treatment), we used the same measures as in Study 1 to capture the control variables of product evaluations (related to the sample cereal mix; $\alpha = .88$), company evaluations, and income. In the second questionnaire (Time 2; after participants were exposed to the final selection of cereal mixes), we measured the participants’ perceived impact (manipulation check). We employed the same items as in Study 1 ($\alpha = .80$).

Following the product evaluation questions regarding the three new cereal mixes ($\alpha = .90$; same items as in Study 1), we again measured product demand by means of BDM auctions. Participants were then given the opportunity to participate in another drawing in which they could win either their selected cereal mix (from the three mixes pre-

sented to them at Time 2) or an equivalent amount of money (retail price of the cereal mix, including shipping costs). As participants were informed, the odds of winning either the selected cereal mix or the money would be exactly the same for both options. Thus, if our theory is correct, compared with participants in the control groups (“the community decides”), participants in the treatment groups (“you and the community decide”) should choose the “win product” option more frequently than the “win money” option.

Findings and Discussion

Control variables. We employed a series of ANOVAs to analyze whether the groups differ with regard to our control variables (see Table W3 in the Web Appendix at <http://www.marketingpower.com/jmjan10>). First, we find that the groups did not exhibit significant differences in their product evaluations of the sample cereal mix, company evaluations, and income (all measured before treatment at Time 1). This means that any differences in the dependent variables can be attributed to our manipulation rather than differing sample characteristics.

Second, there are significant differences in the final product evaluations (cereal mixes evaluated at Time 2; $p < .10$). However, post hoc tests did not reveal significant differences between the two pairs of “you and the community decide” and “the community decides” groups (Group 1 versus 3; Group 2 versus 4). As in Study 1, this finding indicates that the alternative explanations of potential product demand effects are unlikely to be at play. As we expected, however, there are significant differences between the top products (Group 1 and Group 3: $M = 3.36$) and the flop products (Group 2 and Group 4: $M = 2.99$) with regard to product evaluations ($p < .05$). This confirms that at Time 2, in general, the most preferred products from Time 1 (top) indeed received more favorable evaluations than the least preferred products from Time 1 (flop); however, we note that they are not disliked completely.

Manipulation check. Next, an ANOVA reveals significant differences regarding perceived impact ($p < .001$; see Table 3). Taken together, participants in Groups 1 and 2 (“you and the community decide”) reported significantly higher levels of perceived impact ($M = 3.62$) than participants in Groups 3 and 4 (“the community decides”) ($M = 2.82$; $p < .001$). The results are similar if we contrast both empowerment and nonempowerment comparisons separately (post hoc tests); participants in Group 1 ($M = 3.65$) perceived their own impact more than participants in Group 3 ($M = 2.95$; $p < .001$), and participants in Group 2 ($M = 3.58$) perceived a greater impact than participants in Group 4 ($M = 2.66$; $p < .001$). This indicates that empowerment to select drives consumers’ perceived impact independent of the outcome of the product selection process.

Key findings. We also find significant differences between the groups regarding WTP ($p < .05$) (unless otherwise indicated, all findings are based on ANOVAs; see Table 3). Overall, and in support of H_1 , participants in Groups 1 and 2 (“you and the community decide”) were willing to bid significantly more for their chosen cereal mix ($M = 3.96$) than participants in Groups 3 and 4 (“the com-

TABLE 3
Manipulation Check and Findings (Study 3)

	Group 1 (n = 59)	Group 2 (n = 50)	Group 3 (n = 51)	Group 4 (n = 43)
Task (Time 1)	<ul style="list-style-type: none"> • “Select the best cereal mix” • (“You and the community decide”) 	<ul style="list-style-type: none"> • “Select the best cereal mix” • (“You and the community decide”) 	<ul style="list-style-type: none"> • — • (“The community decides”) 	<ul style="list-style-type: none"> • — • (“The community decides”)
Treatment (Time 2)	<ul style="list-style-type: none"> • “Top” products selected 	<ul style="list-style-type: none"> • “Flop” products selected 	<ul style="list-style-type: none"> • “Top” products selected 	<ul style="list-style-type: none"> • “Flop” products selected
Dependent Variables (All at Time 2)	M (SD)	M (SD)	M (SD)	M (SD)
Perceived impact ^a	3.65 (.86)	3.58 (.84)	2.95 (.84)	2.78 (.87)
WTP ^b	15.41 (12.72)	9.25 (10.14)	10.33 (12.50)	9.56 (9.18)
	Group 1 (n = 59)	Group 2 (n = 49)	Group 3 (n = 48)	Group 4 (n = 33)
Lottery choice ^c	Observed frequency (expected)	Observed frequency (expected)	Observed frequency (expected)	Observed frequency (expected)
Cereal mix	53 (43.4)	32 (36.0)	34 (35.3)	20 (24.3)
Money	6 (15.6)	17 (13.0)	14 (12.7)	13 (8.7)

^aANOVA: F-value = 16.033 ($p < .001$).

^bANOVA: F-value = 3.136 ($p < .05$).

^c $\chi^2 = 12.773$ ($p < .01$) (all four groups); $\chi^2 = 3.447$ ($p < .10$) (Groups 1 and 2 versus Groups 3 and 4); $\chi^2 = 7.640$ ($p < .01$) (Groups 1 and 3 versus Groups 2 and 4); $\chi^2 = 6.285$ ($p < .05$) (Group 1 versus Group 3); $\chi^2 = .188$ ($p = .67$) (Group 2 versus Group 4).

Notes: We did not identify a significant interaction between empowerment (“you and the community decide” versus “the community decides”) and outcome (top versus flop products) (perceived impact: F-value = .815; n.s.; WTP: F-value = .503; n.s.).

munity decides”) ($M = 3.44$; $p < .05$). With regard to the outcome of the product selection process (top versus flop), we also find a significant main effect. The participants in Groups 1 and 3 were willing to pay significantly more ($M = 3.96$) for the tops (highest-rated products at Time 1) than those in Groups 2 and 4 ($M = 3.43$) for the flops (lowest-rated products at Time 1) ($p < .05$). This underscores the validity of our method and findings.

However, the results are different if we contrast both empowerment and nonempowerment comparisons separately. Similar to Study 1, post hoc tests reveal that participants in Group 1 are willing to pay significantly more for their chosen cereal mix ($M = 4.27$) than those in Group 3 ($M = 3.59$; $p < .05$) (tops). Again, the increase in WTP is substantial (19%). Consistent with our predictions, however, the difference in WTP between Group 2 ($M = 3.58$) and Group 4 ($M = 3.25$) is not significant (flops). These findings suggest that the empowerment–product demand effect depends on the outcome of the product selection task.

Next, we analyze whether the empowerment–product demand effect is robust to its measurement. We exchange WTP with the second behavioral measure—the participants’ decision whether they want to win their selected cereal mix or an equivalent amount of money. We explore this using cross-tab analysis (see Table 3). Among those who took part in this raffle ($n = 189$), participants in Groups 1 and 2 (“you and the community decide”) were observed more frequently than expected to opt for the “win the cereal mix” option (observed/expected frequency = 85/79.4) than the “win an equivalent amount of money” option (23/28.6). In contrast, participants in Groups 3 and 4 (“the community decides”) were observed less frequently than expected to

opt for the “win the cereal mix” option (observed/expected frequency = 54 / 59.6) than the “win an equivalent amount of money” option (27/21.4) ($p < .10$). We observe a similar main effect for the top versus flop comparison: Participants in the top groups (Groups 1 and 3) wanted to win their chosen cereal mix more frequently than participants in the flop groups (Groups 2 and 4) ($p < .01$). If we analyze the top and flop samples separately, we find similar patterns to those for WTP. Participants in Group 1 chose to win the cereal mix more frequently (53/43.4 for the cereal mix and 6/15.6 for the money) than those in Group 3 (34/35.3 for the cereal mix and 14/12.7 for money; $p < .05$) (tops). In contrast, there is no significant difference between the observed and the expected distributions for Groups 2 and 4 (flops).

Study 4

Objectives and Rationale

In Study 4, we primarily address another potentially important aspect of the generalizability of our proposed empowerment–product demand effect (H_1). In this study, we conjecture that the effect may depend on perceived competence during the process of the product selection task; that is, the effects may diminish if consumers do not believe that they have the relevant competence to make sound decisions. Perceived competence refers to feelings of self-efficacy specific to the underlying task or to a person’s belief in his or her own ability to perform the activity with skill (Bandura 1989). Our prediction again rests on the literature related to psychological ownership. As Pierce, Kostova, and Dirks (2003, p. 89) note, “the motivation for and the meaning of

ownership are embedded in an effectance or competence motive.” If people feel efficacious and competent, they tend to develop psychological ownership of the object being “influenced” (Pierce, Kostova, and Dirks 2003; Spreitzer 1995). In other words, psychological ownership will not be higher among empowered versus nonempowered customers because the lack of perceived competence may hinder feelings of responsibility. It follows that if perceived competence is low, empowerment may not affect product demand.

To explore this idea, we manipulate the process of the empowerment-to-select initiative, with groups being exposed to a selection task that induces either high or low levels of perceived competence. Instead of varying the underlying product category, we manipulate the complexity of a given product to keep alternative explanations to a minimum. As in Study 2, we opted for a more realistic study approach (online setting; consumer panel).

Method

Design and procedure. Again, we used cereals as the underlying product category, and participants ($n = 280$) were recruited from a European online consumer panel and randomly assigned to groups. We devised a two-factor between-subjects design. The two factors we manipulated were participation (“you and the community decide” versus “the community decides”) and the competence associated with the product selection task (high versus low competence). Participants in Group 1 ($n = 69$) and Group 2 ($n = 65$) were exposed to the empowerment-to-select treatment. Group 3 ($n = 74$) and Group 4 ($n = 72$) were the equivalent of Group 2 in Study 1 (“the community decides”; participants were not empowered to participate in the selection process and not exposed to the products at Time 1). We chose this control group again (rather than the other two control groups in Study 1) mainly because any potential interaction effects related to competence (high versus low) should be highest compared with this group (e.g., if participants do not feel competent to perform the product selection task, the related effects should be more similar between the treatment group and Group 4 from Study 1 [i.e., “market research”]).

Participants in Groups 1 and 2 evaluated 12 prototype cereal mixes, all of which consisted of (1) a constant cereal basis (i.e., four types of grains; identical among all mixes) and (2) a variable mix of four additional ingredients (i.e., a combination of fruits and nuts; different among mixes). We added the constant cereal basis to attain a basic level of comparability and similar product evaluations between groups. We manipulated perceived competence by changing the variable mix. The participants in Group 1 were shown mixes consisting of generally known ingredients (e.g., strawberries, hazelnuts); thus, we assumed that participants’ perceived competence to evaluate these alternatives would be high (“normal” cereal mixes). At Time 2, participants in Groups 1 and 3 were shown the three mixes that received the highest scores (rating from Group 1 at Time 1). Participants in Group 2 were instead asked to evaluate “exotic” cereal mixes, with the variable mix consisting of four ingredients (exotic fruits and nuts) assumed to be less known among participants (e.g., jackfruit, goji berries). Conse-

quently, they should feel less competent in performing the related product selection task. At Time 2, participants in Groups 2 and 4 were shown the three mixes that received the highest scores (rating of Group 2 at Time 1). Otherwise, we employed the same procedures as in the previous studies.

Measures. In the first questionnaire (Time 1; before treatment), we used the previous measures to capture the control variables of product evaluations (related to the sample cereal mix; $\alpha = .89$), company evaluations, and income. After participating in the product selection task, participants in Groups 1 and 2 completed the following three items to measure perceived competence (adapted from Menon 2001; Spreitzer 1995; $\alpha = .79$): “I feel competent enough to select the best cereal mixes,” “I feel that I have the relevant knowledge and expertise to make sound evaluations,” and “I had difficulties evaluating the cereal mixes properly” (reversed) (1 = “strongly disagree,” and 5 = “strongly agree”).

In the second questionnaire (Time 2; after participants were exposed to the final selection of cereal mixes), we employed the same measures as in the previous studies to capture the participants’ perceived impact ($\alpha = .78$) and product evaluations regarding the three new cereal mixes ($\alpha = .74$). As in Study 2, we decided to measure product demand in terms of hypothetical WTP and purchase intentions because we could not employ WTP measurements using BDM auctions because of the panel’s restrictions. We employed the same two measures of purchase intentions as in Study 2 (Measure 1: two-item scale [$\alpha = .88$]; Measure 2: single item), but we changed the WTP measure slightly. Most important, we altered it from absolute terms (“How much would you pay?”) to relative terms (“Imagine you could buy a very similar cereal mix from another company. Would you be prepared to pay more or less compared to a cereal mix from this collection?” 1 = $>30\%$ [more than 30% more]; 7 = $<30\%$ [more than 30% less]) (adapted from Chitturi, Raghunathan, and Mahajan 2007). We did this to capture the incremental value of or the demand for the underlying cereal mix compared with similar cereal mixes from other companies (incremental WTP).

Findings and Discussion

Control variables. We employed a series of ANOVAs to analyze whether the groups differed with regard to our control variables (see Table W4 in the Web Appendix at <http://www.marketingpower.com/jmjan10>). First, we again find that the groups did not exhibit significant differences with regard to their product evaluations of the sample cereal mix, company evaluations, and income (all measured before treatment at Time 1). Second, there are no significant differences in the final product evaluations (i.e., the cereal mixes evaluated at Time 2). As in the previous studies, this finding provides evidence that the alternative explanations for potential product demand effects are unlikely to be at play.

Manipulation check. Next, an ANOVA reveals that the manipulation of competence was effective; participants in Group 1 ($M = 4.44$) felt significantly more competent in evaluating the normal cereal mixes than participants in Group 2 ($M = 3.45$; $p < .001$) felt when evaluating the exotic cereal mixes (Time 1; see Table 4). Furthermore, we

TABLE 4
Manipulation Check and Findings (Study 4)

	Group 1 (n = 69)	Group 2 (n = 65)	Group 3 (n = 74)	Group 4 (n = 72)
Task (Time 1)	<ul style="list-style-type: none"> • “Select the best cereal mix” • (“You and the community decide”) 	<ul style="list-style-type: none"> • “Select the best cereal mix” • (“You and the community decide”) 	<ul style="list-style-type: none"> • — • (“The community decides”) 	<ul style="list-style-type: none"> • — • (“The community decides”)
Cereal mixes	<ul style="list-style-type: none"> • “Normal” 	<ul style="list-style-type: none"> • “Exotic” 	<ul style="list-style-type: none"> • “Normal” 	<ul style="list-style-type: none"> • “Exotic”
Dependent Variables (All at Time 2)	M (SD)	M (SD)	M (SD)	M (SD)
Perceived competence ^a	4.44 (.56)	3.45 (.85)	—	—
Perceived impact ^b	3.76 (.99)	3.62 (.84)	2.81 (1.12)	3.01 (1.09)
Incremental WTP ^c	4.65 (1.24)	4.49 (1.15)	4.23 (.90)	4.19 (.76)
Purchase intention (Measure 1) ^d	4.15 (.96)	3.78 (1.01)	3.66 (1.06)	3.59 (1.16)
Purchase intention (Measure 2) ^e	7.43 (2.18)	6.48 (2.24)	6.55 (2.38)	6.00 (2.53)

^aANOVA: F-value = 64.595 ($p < .001$).

^bANOVA: F-value = 14.213 ($p < .001$).

^cANOVA: F-value = 3.214 ($p < .05$).

^dANOVA: F-value = 3.994 ($p < .01$).

^eANOVA: F-value = 4.572 ($p < .01$).

Notes: We did not identify a significant interaction between empowerment (“you and the community decide” versus “the community decides”) and competence (normal versus exotic cereal mixes) (perceived impact: F-value = 2.026; incremental WTP: F-value = .259; n.s.; purchase intention measure 1: F-value = 1.515; n.s.; purchase intention measure 2: F-value = .520; n.s.).

find significant differences in perceived impact ($p < .001$). Taken together, participants in Groups 1 and 2 (“you and the community decide”) reported significantly higher levels of perceived impact ($M = 3.69$) than participants in Groups 3 and 4 (“the community decides”; $M = 2.91$; $p < .001$). The results are similar if we contrast both empowerment and nonempowerment comparisons separately (post hoc tests); participants in Group 1 ($M = 3.76$) perceived a greater impact than participants in Group 3 ($M = 2.81$; $p < .001$), and participants in Group 2 ($M = 3.62$) perceived a greater impact than participants in Group 4 ($M = 3.01$; $p < .001$). This indicates that empowerment to select drives perceived impact independently of perceived competence in the product selection process.

Key findings. We also find significant differences between groups regarding incremental WTP ($p < .05$; all findings are based on ANOVAs; see Table 4). Overall, participants in Groups 1 and 2 (“you and the community decide”) indicated that they would be willing to pay significantly more for one of the final selected cereal mixes compared with similar cereal mixes from other companies ($M = 4.57$) than participants in Groups 3 and 4 (“the community decides”) ($M = 4.21$; $p < .01$). We find similar results for both measures of purchase intentions (Measure 1: $M = 3.97$ versus $M = 3.62$; $p < .01$; Measure 2: $M = 6.99$ versus $M = 6.28$; $p < .05$). Taken together, these findings again support H_1 .

However, the results are different if we contrast both empowerment and nonempowerment comparisons separately. Whereas post hoc tests reveal significantly higher means for incremental WTP in Group 1 ($M = 4.65$) than in

Group 3 ($M = 4.23$; $p < .05$; normal cereal mixes), the corresponding difference between Groups 2 and 4 is not significant ($M = 4.49$ versus $M = 4.19$; n.s.; exotic cereal mixes). We observe the same patterns for the two measures of purchase intentions (Measure 1: Group 1: $M = 4.15$ versus Group 3: $M = 3.66$; $p < .01$; Group 2: $M = 3.78$ versus Group 4: $M = 3.59$; n.s.; Measure 2: Group 1: $M = 7.43$ versus Group 3: $M = 6.55$; $p < .05$; Group 2: $M = 6.48$ versus Group 4: $M = 6.00$; n.s.). Overall, this supports our prediction that the empowerment–product demand effect depends on the perceived competence during the product selection process (i.e., the effect diminishes if consumers do not believe that they have the relevant competence to make sound decisions).

General Discussion

Summary and Managerial Implications

In this article, we analyze the psychological consequences of empowerment-to-select strategies. In the course of four studies, we find that though participants’ product evaluations are identical, those who are empowered to select the products to be marketed exhibit stronger demand for the underlying products than those who are not empowered to do so (measured in various ways, including purchase intentions and WTP based on real auctions). This effect can be observed because customers assume more psychological ownership of the selected products. The managerial implications of our findings are straightforward: In exchange for giving up a certain degree of power to consumers, compa-

nies can not only reduce the risks associated with new products but also benefit from increased demand.

These findings also highlight the notion that such empowerment strategies might constitute a promising alternative to other Web-enabled initiatives, such as mass customization. Research in that field has shown that customers are willing to pay substantially more because “customized products create higher benefits for customers than standard products because they deliver a closer preference fit” (Franke, Keinz, and Steger 2009, p. 103). Notably, and in contrast to our findings, those scholars find that customization boosts individual demand (WTP) and product evaluations. This may be attributed to the notion that self-design (versus empowerment to select) allows for the highest level of preference fit as well as feelings of accomplishment from having designed a custom product oneself (Franke and Schreier 2008; Franke, Schreier and Kaiser 2010). In practice, however, this will depend heavily on the firm’s ability to respond to customers’ individual preferences, which means that the benefits of customization always come at the cost of producing single-unit quantities. If the extra benefit does not outweigh the extra cost (e.g., due to the complexity of production), empowerment to select may be preferable to mass customization.

Furthermore, we find that the empowerment–product demand effect depends on the outcome of the product selection task. In other words, the effects diminish if the outcome of the joint decision-making process does not reflect the consumers’ preferences. In light of this finding, companies may benefit in particular from psychological product demand effects if consumer preferences within a market or market segment are relatively homogeneous (i.e., most consumers will see “their” products win). In contrast, the fraction of consumers with increased product demand will be smaller if consumer preferences are highly fragmented (i.e., most consumers will see winning products that they do not prefer; in such situations, mass customization may be a preferable strategy). However, our findings also suggest that no negative product demand effects can be expected in the latter case (empowered customers do not demand the products less than nonempowered customers), though a stronger test using a highly involving product category and truly “disliked” flop products would be necessary to conclude this with certainty.

We also find that the empowerment–product demand effect depends on perceived competence during the product selection task (i.e., the effects diminish if consumers do not believe that they have the relevant competence to make sound decisions). This finding has clear implications. Companies may be more likely to benefit from psychological product demand effects if their (potential) customers are competent enough to be empowered. In other words, empowerment will be most beneficial in product categories in which broad parts of the consumer population have a sound level of knowledge, consumers can easily compare different product concepts, and such tasks can be carried out online.

Beyond the specific benefits we discussed, managers should consider the potential drawbacks of empowerment. For example, what if customers participating in such initia-

tives do not closely reflect the larger target market? In such a situation, the products selected by empowered customers may not be the “right” products for the rest of the market. This problem may be especially severe for more complex and technical products because few consumers will be interested in empowerment if they do not understand the products well in the first place. This would imply that only a small fraction of highly knowledgeable, leading-edge consumers will participate. Compared with a large and more representative set of participants, the likelihood of matching the preferences of the general market may be clearly lower. Conversely, this does not constitute a flaw from the outset, because it may be that such lead users foreshadow general demand (Franke, Von Hippel, and Schreier 2006; Urban and Von Hippel 1988). In either case, the small number of participants in such a context would also reduce the overall magnitude of the effects we report herein.

Another drawback is that empowerment firms lose a certain degree of power in decision making. This may have severe consequences if, from the company’s perspective, customers “do not get it right.” For example, a company’s user community may develop a certain “aesthetic” (i.e., a strong sense of what they want) over time, thus leaving little room for more radical shifts and changes—like “a school of fish moving in a particular direction” (from an interview with one of the founders of Threadless, qtd. in Walker 2007, p. 1).

Limitations and Further Research

Several limitations and promising areas for further research warrant discussion in this context. First, our experiment was framed around an unknown brand, and therefore we are confident that our findings will also hold for start-up companies in particular. Further research should analyze whether and how our findings can be extended to established brands. On a related note, it might be worthwhile to explore the extent to which the size of the community influences empowerment effects. Intuition suggests that the size could be negatively related to perceived impact (e.g., a person will perceive a greater impact if only he or she and a few others decide). However, the contrary might also be true; consumers may feel and appreciate being part of a larger and more important movement.

Second, it would be worthwhile to analyze how empowerment effects change over time. In this context, the degree to which the outcome meets the consumer’s preferences might be a moderator. As noted previously, we did not find an interaction effect between empowerment and outcome (top versus flop) on perceived impact, nor did we find a related negative effect on product demand in our setting. We still believe that such effects could arise, at least in the long run. As in the case of repeated negative experiences during political elections, customers may get frustrated and lose the perception of “really” having an impact on the final outcome if they are always “wrong” (Kanazawa 2000). Consequently, over time, the product demand effect may not only diminish but also become negative as a result of certain disappointment effects in the case of repeated weak matches between a consumer’s individual preferences and those of the community. Important variables to consider here might

also include the degree to which consumers really remember their specific chosen product concepts from Time 1 to Time 2 (to determine whether their choices made it to the shelves) and the perceived variance in the original choice set (to determine whether nonpreferred concepts sufficiently resemble their preferred concepts).

Third, it would be worthwhile exploring whether empowerment also affects other marketing variables that are not tied to the underlying products. As a start in that direction, we found that empowerment also increased consumers' future loyalty intentions. This indicates that there

may be more general effects on the customer–company relationship. If this holds true, it may be useful to extend and contrast the related implications of empowering customers to select the products a company should market to other consumer-relevant decision-making processes, such as the selection of advertising campaigns or targets for corporate social responsibility activities. Scholars pursuing this line of research will help enhance the understanding of empowerment strategies, which in turn will inform managers more fully about the enduring and long-term consequences of shifting power to consumers.

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