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The Effect of Capability and Usability on Consumer Preference Under Forced Adoption Condition

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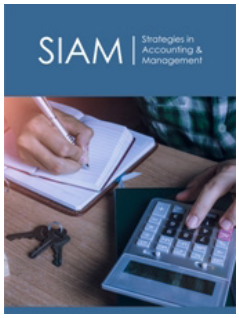

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Abstract

Forced adoption is becoming a common marketing tactic to ensure that the introduction of new products is successful, but little is known about how consumers evaluate the new products in this circumstance. Because new products are appealing to consumers by virtue of their more powerful functions or more friendly interfaces, capability and usability are the two key determinants of whether a new product will be adopted or purchased. Research based on construal-level theory indicates that consumers give more weight to capability before first use (distant future) and more weight to usability after first use (near future). However, forced adoption can trigger choice conflict, which causes preference reversals. According to a reasons-based approach, when consumers face a difficult decision they give more weight to the inferior attributes of a product, as these attributes provide a good reason to make a particular choice and thus resolve the difficulty. Therefore, usability is more important before a new product is first used, whereas capability is more important after first use. In this study, a structural model was constructed that contributes to the understanding of consumers' behavioral intentions when they are forced to adopt a new product. We further explore the distinction between usage before and after adoption of the product. The study provides insight into the inconsistency of preferences as a function of temporal distance when consumers are forced to adopt a new product.

Keywords: Forced adoption; New products; Capability; Usability

Introduction

In many real-life situations, consumers are forced to adopt a new product if they continue to seek the same objective or want to stick with the same provider. Forced adoption happens because these new products are usually developed by the dominant firms for that product line, firms that are more able than their competitors to invest large amounts of resources in research and development (e.g., Microsoft). Consumers are most likely to adopt a new product from the dominant firm if they are already using existing product from that firm or the new product is very popular. Moreover, when a company decides to discontinue an old product, consumers are also forced to adopt the new product. For example, to lower operating costs, a company might shift to self-service procedures [1-3], as was the case when banks introduced automated teller machines and airlines introduced self-service kiosks. Consumers are thus compelled to change their usage behavior, perhaps unwillingly. This dilemma may induce emotional discomfort and frustration, resulting in a negative attitude toward the product. However, little is known about how consumers' behavioral intentions are formed when they are forced to adopt a new product. Is the new product's popularity adversely affected? Clearly, the issue is important practically as well as theoretically.

Consumers' evaluations of the "capability" of a new product (i.e., how well it works, how much it can do) and its "usability" (i.e., ease of use) are the two most important determinants of whether they adopt or purchase it [4-9]. This is because new products tend to be more functional or user-friendly than the ones they replace [5,10]. Although adding features can increase a new product's capability, they also can make it more difficult to use. Consequently, consumers face a trade-off that makes their decision-making process more complex and the decision itself more difficult. Research further indicates that this complexity and difficulty increases the irrationality or inconsistency of the choices [11-13]. A number of marketing studies suggest that consumers' evaluations of new products vary as a function of temporal distance, that is, how long a purchase or adoption is going to take place. According to temporal construal-level theory [14,15], consumers favor more abstract or desirable attributions (e.g., capability) in the distance future, and they prefer more concrete or feasible attributions (e.g., usability) in the near future. Studies of new products have provided results consistent with temporal construal-level theory [5,7,10,16]. Thus, there is a sound basis for hypothesizing that consumers' preferences will change as a function of temporal distance when they are forced to adopt a new product.

However, the most important characteristic of forced adoption is the restriction of consumers' freedom of choice, and this is the main source of preference reversals. Limiting freedom of choice induces psychological reactance, which leads to choose conflict [11]. Basing on reason-based theory, consumers give more weight to relatively trivial or inferior product characteristics when faced with choice conflict, and the literature shows that selecting the inferior option is served as a good reason to resolve the conflict [17,18,11,12,19]. In other words, the findings predicted by temporal construal-level theory may be reversed in the case of forced adoption of new products. More specifically, we hypothesize that usability is more attractive in the distant future (before the new product is used), whereas capability is more attractive in the near future (after the product is first used). The research model explores the relationship between a new product's major attributes (capability and usability) and consumers' behavioral intention to use the product, as well as the factors that determine the product's capability and usability. We also examined how consumers weigh their trade-off needs for capability and usability as a function of temporal distance. All the hypotheses were tested in a field study using survey data for assessing the usage of a new product. We adopted it believing that it can increase our understanding of consumers' decision-making process with respect to a new product and provide insights into the inconsistency of consumer preferences at different temporal distances. Self-Service Technologies (SST) are technological interfaces that enable customers to produce a service without a service employee's involvement. The need for airlines to bring down their operating costs favors the use of self-service technologies in services provided to passengers and at check-in, specifically. From the company's point-of-view, the use of SST can drive up productivity and efficiency, reduce or avoid high labor costs. In this study, we constructed an evaluation model that applies when consumers are forced to adopt self-service baggage drop.

Theoretical Background and Hypotheses

The effects of capability and usability on new product evaluations as a function of temporal distance

A popular strategy for developing new products is to make them more functional [6,20] or user-friendly than the products they replace [5,10]. Both attributes play an important role in determining whether consumers decide to purchase or adopt a new product [21-23,5,6,24,7,10]. In general, researchers have suggested that capability is more influential than usability on consumers' behavioral intentions [21,22,25]. This is because they consider capability to be more important and more desirable than usability [7,10].

A common way to enhance new products' capability is to add more features, but this often reduces ease of use [7,10]. This trade-off between capability and usability causes consumers' decision making to be more complex and difficult. Research indicates that this difficulty creates conflict and increases the irrationality or inconsistency of the purchasing decisions [11,12]. There is ample empirical evidence that when consumers evaluate a new product, they weigh capability and usability differently as a function of temporal distance [26,5,7,10]. Most of these studies used temporal construal-level theory [14,15] to explain the difference. According to this theory, when consumers evaluate options for the distant future, they give the most weight to capability. To the contrary, when they evaluate options for the near future, they give more weight to usability [5,7,10]. The conflict that underlies the inconsistency in consumer preferences results in "feature fatigue," which in turn tends to lead consumers to choose overly complex products that do not fully satisfy them when they use them [7]. These findings show that the relative weights of capability and usability change because of differences in how the products are evaluated at different temporal distances.

How consumers weigh capability and usability in forced adoption conditions

Forced adoption means that consumers have no choice. The perception of being restricted leads to conflict, emotional discomfort, and frustration [11]. Thus, forced adoption can result in a negative attitude toward the new product and the company that makes it. These negative attitudes, in turn, lead to adverse behavioral intentions reflected in switching to another provider or negative word of mouth [1]. Although previous research suggests that forced adoption indeed has negative effects, little is known about how consumers evaluate the new product in this situation.

Consumer decision making under reason-based theory: Previous research has advanced the notion that consumers' choices in conflict situations (e.g., forced adoption) can be better understood if one considers the reasons for and against each alternative [17,18]. Although the reasons suggested by researchers may not always correspond to those that motivate actual decision makers, it is generally agreed that a reasons-based analysis can help explain these decisions [18,27], because focusing on reasons simulates how consumers normally think and talk about their choices, and it is a natural way to understand the conflict that underlies the decision-making process [27]. Because forced adoption creates psychological conflict, it is appropriate to use reasons-based theory to explain consumers' inconsistency in weighing capability and usability at different temporal distances.

According to this reasons-based approach, decision makers are more likely to choose alternatives that are perceived as most justifiable to the others who will evaluate their choices, such as supervisors, spouses, or groups to which the decision maker belongs [28]. Generally, consumers give more weight to relative common, superiority and important attributions such as utilitarian and dominating attributes [17,29,30,19], because they are the most readily justified for adoption purposes, cognitively available, and diagnostic of the appropriate choice. These results suggest that the focus of consumers' decision-making process shifts from choosing good options to choosing good reasons.

Consumer preferences when forced to adopt a new product: the effect of temporal distance: According to the reasons-based approach, people generally give more weight to the most important attributes of the product. However, researchers further indicate that consumers may give more weight to the less important attributes when they encounter with choice difficulty [17,18,11,12,19]. The relative weight given to the superiority and inferiority attributes can change; the superiority attributes provide a more justifiable basis for the decision in common events, but the inferior attributes is served as good reasons to resolve the difficulty. When consumers are forced to adopt a new product, their decision becomes much more complex and difficult. The conflict becomes apparent when people think they have chance to reject a new product, as in the distant future. However, if the adoption is a fact (as in the near future) or the product is "crammed down the consumer's throat", all the consumers can do is accept the new reality, which then eliminates the conflict. Thus, we hypothesized for this study that when consumers are forced to adopt a new product, they will consider secondary attributes in their evaluations of the product before they adopt it (placing more weight on its usability), but they will give more consideration to primary attributes after they have used the product (assigning more weight to its capability).

H_1: The positive relationship between capability and behavioral intention is stronger after consumers are forced to adopt a new product than before they are forced to adopt it.

H_2: The positive relationship between usability and behavioral intention is stronger before consumers are forced to adopt a new product than after they are forced to adopt it.

The relationship between capability and usability

Studies on marketing and information management show a high correlation between capability and usability. Researchers have suggested that consumers are likely to use the quality of lower level/concrete attributes to infer the quality of higher level/abstract attributes [31]. Because previous studies indicate that capability is considered to be a more important attribute than usability [7,10], it has been assumed that the perception of usability partly determines the perception of capability. There is ample evidence from the information management literature confirming this assumption [26,21,33]. These researchers used the Theory Of Reasoned Action (TRA) to expand the Technology Acceptance Model (TAM) [22], thereby being the first to postulate a causal relationship between perceived usability and perceived capability. The relationship arises because improvement in a products' ease of use instrumentally contributes to increasing its performance. The effort saved by increased ease of use can be redeployed, enabling users to accomplish more tasks with the same effort. Thus, they consider the product more useful. Yousafzai et al. [32] present a rigorous meta-analytic review of 145 papers published on the TAM, concluding that there is a statistically significant effect of usability on capability. However, most of the literature has focused on consumer perceptions before the product is first used. We predict that this relationship will hold both before and after first use.

H_3: Consumer's perceptions of product usability are positively associated with their perceptions of product capability both before and after the product is first used.

Determinants of capability and usability

Choice difficulty resulting from forced adoption of a new product can make individuals feel bushed and helpless. Thus, people crave other peoples' opinions and any external assistance they can get to make the difficult choice. According to the literature, the need to refer to others' opinion is virtually a norm, as is the demand for extraneous help. Derived from the TRA, a subjective norm (also called a social norm) is "the person's perception that most people who are important to him think he should or should not perform the behavior in question" [34]. Because subjective norms are considered to offer an important explanation of consumers' acceptance behavior [26,35], we consider it necessary to include this construct in our research model on forced adoption. [26] suggested that subjective norms are formed on the basis of internalization, a kind of information influence that occurs when individuals accept information as evidence of reality. Internalization may increase the effect of the subjective norm on perceived capability [33], because the opinions of important referents could influence a person's evaluation of the utility of a product. Hence,

the suggestion of a superior, peer, or friend that a new product is functional could affect the individual's perception of that capability, especially if the recipient of the suggestion is in a forced adoption situation. Moreover, we hypothesize that the relationship between the subjective norm and capability should hold both before and after the consumer first uses the product.

H_4: Consumers' perceptions of a subjective norm have a positive effect on their perceptions of the product's capability both before and after first using it.

The second important exogenous factor involves facilitating conditions, defined as objective factors in the environment that observers agree make an act easy to accomplish [7]. Most researchers who consider such factors important explain consumer behavior in an information system context. They find that this definition captures two different constructs: perceived resources [36] and perceived behavioral control [37]. In other words, facilitating conditions represent the extent to which individuals believe that they have the external assistance needed to perform a behavior.

The more external assistance that comes from individuals or organizations, the more willing the individual will be to perform the activity. Most relevant studies have linked facilitating conditions to behavioral intentions, but other studies show that facilitating conditions do not significantly influence intentions [38]. Previous studies further suggest that facilitating conditions affect behavioral intentions through perceived ease of use and usefulness [39]. Specifically, facilitating conditions predict intention only if perceived usability is not present in the model [37]; Ali et al. We can conclude from these research results that usability fully mediates the effect of facilitating conditions on behavioral intentions. Thus, we hypothesize that the more facilitating conditions are available to consumers of a new product adoption, the more usability they perceive for the product. Moreover, whereas previous research mostly has explored this relationship only before first use, we predict that it will hold both before and after first use when consumers are faced with forced adoption.

H_5: Consumers' perceptions of facilitating conditions have a positive effect on their perceptions of product usability, both before and after first use of the product.

Methodology

Study context and sample

Data were collected through a questionnaire conducted with customers who are members of the airline's frequent flyer program. User reactions to self-service baggage drop were gathered at two points in time during a six month: airline check in at the counter by the ground attendant (T_1) and after six months of actual usage (T_2). Thus, T_1 represented before first time use, and T_2 represented after first time use. There were 204 valid questionnaires collected at T_1 and 216 at T_2. Among the respondents at T_1, 146(71.57%) passengers were female, 96 passengers were between the ages of 46-55(47.06%). Among the respondents at T_2, 159(73.61%) passengers were female, 107 passengers were between the ages of 46-55(49.53%).

Measures

The 15 questionnaire items were adapted from prior research, with wording changes to make them appropriate for the airline self-service baggage drop context. Two items referred to the subjective norm, three to facilitating conditions, three to usability, four to capability, and three to behavioral intention (see Appendix). All items were responded to on five-point Likert scales, with the alternatives ranging from "strongly disagree" to "strongly agree." The associations of the five constructs, their indicators (the items), and the research hypotheses are shown in Figure 1.

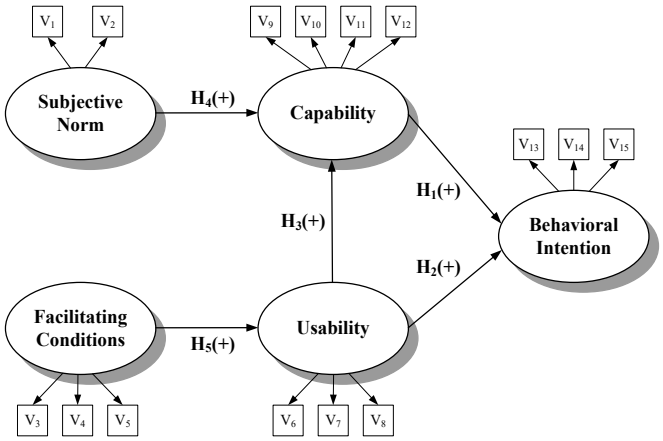

Figure 1: Measurement model and research hypotheses.

Note: "+" refers to the positive effect.

Results

Measurement model

We performed two confirmatory factor analyses, one for pre-adoption and one for post-adoption. Both models exhibited a good fit to the data: pre-adoption: $\chi^2_{(80)}$ =142.320, Goodness-of-Fit Index [GFI]=0.917, Comparative Fit Index [CFI]=0.968, Normed Fit Index [NFI]=0.930, and Root Mean Square Error of Approximation [RMSEA]=0.062; post-adoption: $\chi^2_{(80)}$ =139.797, GFI=0.925, CFI=0.971, NFI=0.936, and RMSEA=0.059. Table 1 provides the detailed results of the two analyses. For each construct, Cronbach's α exceeded the standard for acceptance of 0.7, the composite reliability exceeded the standard of 0.6, and the Average Variance Extracted (AVE) exceeded the standard of 0.5. Convergent validity was also supported for each construct of both models in that all the factor loadings were highly significant ($p<0.001$) and all the standardized factor loadings were greater than 0.5.

Table 1: Results of the confirmatory factor analysis.

Constructs and Items	Standardized Factor Loadings	
	Before Adoption (*N* = 204)	After Adoption (*N* = 216)
Subjective norm		
V_1	0.871***	0.761***
V_2	0.720***	0.792***
	Cronbach's α = 0.770; CR = 0.778; AVE = 0.639	Cronbach's α = 0.752; CR = 0.803; AVE = 0.671
Facilitating conditions		
V_3	0.811***	0.722***
V_4	0.882***	0.864***
V_5	0.697***	0812***
	Cronbach's α = 0.832. CR = 0.841; AVE = 0.640	Cronbach's α = 0.836. CR = 0.875; AVE = 0.770
Usability		
V_6	0.755***	0.691***
V_7	0.678***	0.762***
V_8	0.789***	0.733***
	Cronbach's α = 0.784; CR = 0.786; AVE = 0.551	Cronbach's α = 0.770; CR = 0.832; AVE = 0.624
Capability		
V_9	0.856***	0.838***
V_{10}	0.726***	0.792***
V_{11}	0.780***	0.719***
V_{12}	0.851***	0.690***
	Cronbach's α = 0.882; CR = 0.880; AVE = 0.648	Cronbach's α = 0.841; CR = 0.876; AVE = 0.640
Behavioral intention		
V_{13}	0.871***	0.923***
V_{14}	0.799***	0.781***
V_{15}	0.876***	0.929***
	Cronbach's α = 0.884; CR = 0.886; AVE = 0.721	Cronbach's α = 0.909; CR = 0.992; AVE = 0.798

Note: CR = Composite Reliability; AVE = Average Variance Extracted

We began the assessment of discriminant validity by computing the chi-square difference statistic for the unconstrained models (pre-adoption: $\chi^2_{(80)}$ =142.320; post-adoption: $\chi^2_{(80)}$ =139.797) and the constrained models. The constrained models are estimated by fixing the correlation between two constructs of interest at 1. The results show that for each pair of constructs both before and after adoption, the chi-square value of the unconstructed model is significantly lower than all constrained model. Thus, each constructs are viewed as distinct factors, and we can conclude that discriminant validity was supported for each construct of both pre-adoption model and post-adoption model.

Structural models

To test the hypotheses, we configured two structural models separately. The first model consisted of the pre-adoption samples (N=204) and the second consisted of the post-adoption samples (N=216). Figure 2 display the results for the two models. Both had acceptable fit to the data with respect to complexity and sample size: pre-adoption: $\chi^2_{(84)}$ =172.868, GFI=0.900, CFI=0.954, NFI=0.915, and RMSEA=0.072; post- adoption: $\chi^2_{(84)}$ =174.108, GFI=0.905, CFI=0.957, NFI=0.920, and RMSEA=0.071. The path coefficient estimates show that capability had a positive effect on behavioral intentions both before and after adoption, whereas usability had a positive effect on behavioral intentions only before adoption. These results provide partial support for H_1 and H_2. The R^2 for behavioral intention was 0.858 before adoption and 0.789 after adoption, indicating that capability and usability account for 85.8% and 78.9% of the variance in behavioral intention respectively. Results for the path leading to product capability show that both usability

and subjective norm were positively associated with capability, both before and after adoption. Thus, H_3 and H_4 are supported. From the R^2 estimates of capability (pre-adoption: 0.808; post-adoption: 0.795) we can conclude that the usability and subjective norm respectively accounted for 80.8% and 79.5% of the variance of capability. The results also indicate a positive effect of facilitating condition on usability both pre-adoption and post-adoption. Thus, H_5 is supported. The R^2 values for usability (pre-adoption: 0.679; post-adoption: 0.468) reveal that facilitation condition is a key determinant of usability.

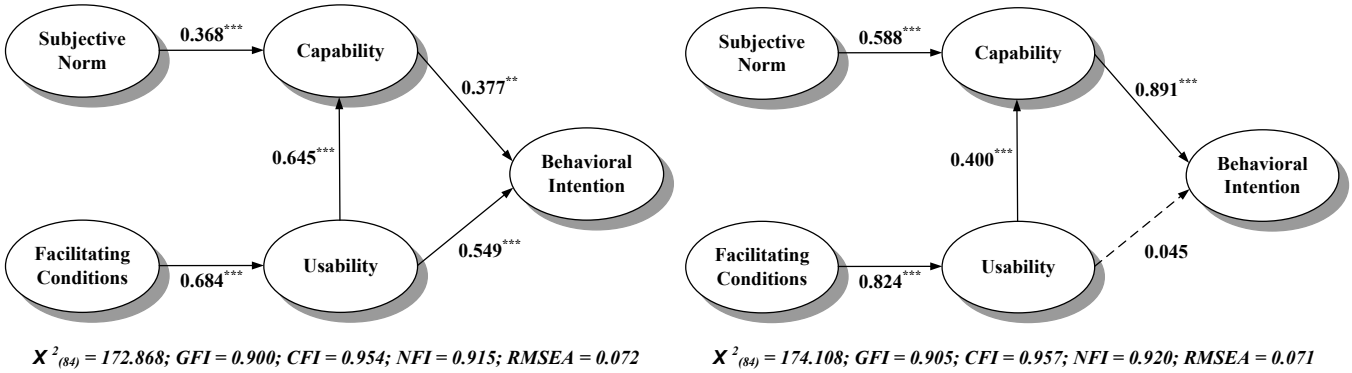

Figure 2: Results of the structural model analysis.

Note: *p <0.01; ***p <0.001.

Multigroup analysis

Hypotheses 1 and 2 predicted that the associations of capability and usability with behavioral intentions will be different before and after consumers are forced to adopt a new product. To test these hypotheses, we conducted a multigroup analysis with the data from both periods. We then tested the equality of both path coefficients across the two groups by using a chi-square difference test to compare a model with a free path coefficient (unconstrained model) to a model with a specific path set to be equal for the two groups (constrained model). Table 2 displays the results of this analysis. For the unconstrained model, $\chi^2_{(168)}$ =346.977. When we constrained the path coefficient of capability → behavioral intentions equally across the two groups, $\chi^2_{(169)}$=359.951. As for the difference between the models, $\Delta\chi^2_{(1)}$ =12.974 (p<0.001), suggesting that the effect of capability on behavioral intentions was not equal at T_1 and T_2. Moreover, the parameter estimates shown in Figure 2 indicate that the capability → behavioral intention path had a higher value after adoption (b=0.891, p<0.001) than before adoption (b=0.377, p<0.01). Thus, H_1 is supported; the relationship between capability and behavioral intention is stronger after consumers are forced to adopt a new product than before they are forced to adopt it. The same analysis process was conducted to test the path from usability to behavioral intentions. Here, we found $\Delta\chi^2_{(1)}$ =4.906 (p<0.05) between the unconstrained and the constrained models. Furthermore, the parameter estimates in Figure 2 reveal that the usability → behavioral path was significant before adoption (b=0.549, p<0.001) but nonsignificant after adoption (b=0.045, p>0.1). Hence, H_2 is supported; the effect of usability on behavioral intentions is stronger before consumers are forced to adopt a new product than after they are forced to adopt it.

Table 2: The multigroup analysis of the structural model.

	χ^2	*df*	$\Delta\chi^2$	Δdf	*P*
Unconstrained	346.977	168	--	--	--
Constrained					
1. US→BI	359.951	169	12.974	1	P <0.001
2. CA→BI	351.883	169	4.906	1	P <0.05

Note: US = Usability; CA = Capability; BI = Behavioral Intention

Discussion

Theoretical implications

The major theoretical contribution of this study is to provide a better understanding of how consumers switch their preference for a new product as a function of temporal distance when they are forced to adopt it. We concluded that the changes in the relative weights consumers assign to the capability and usability of new product are based on the reasons-based theory. Our results show that before participants were forced to adopt a new SST, their usage intentions were guided more by their evaluations of the SST's usability than its capability, whereas they gave more weight to the SST's capability after they actually started using it. Our results differ from those of previous relevant studies because forced adoption leads to psychological conflict and emotional discomfort. As predicted by the reasons-based theoretical approach, when people are in a state of conflict, they often pay paramount attention to product attributes that they normally would consider of less importance, such as how easy the product is to use. In such a forced situation, the product's usability becomes a good reason to justify the consumer's adoption of the new product. In other words, those

attributes are preferred that offer a reason for the decision and help reduce the consumer's feelings of conflict and discomfort. However, after the product is purchased and becomes a part of the consumer's life, the conflict is reduced, and the focus shifts to the more important attributes of the product having to do with its capability. At this stage, this more important characteristic is the reason or justification the consumer can cite for continuing to use the product.

Our results also have implications for temporal construal-level theory, as the conflict consumers experience when forced to adopt a new product may cause them to weight capability (i.e., the desirability per se of the product's main features) and feasibility (i.e., usability) differently in the distant and the near future. When a purchase or a decision raises conflict, consumers favor a more feasible (easy to use) option in the distant future and a more inherently desirable option in the near future. We further indicated a positive relationship between perceived product usability and perceived product capability both before and after initial use. The easier to use that consumer considered the new SST to be, the more functional they found it to be. This relationship implies that feasibility might enhance the inherent desirability of a new product that is forced on the consumer. Especially when conflict and discomfort are aroused, a product's secondary attributes could increase the attention paid to its primary attributes.

Consistent with our last two hypotheses, the results suggest that the presence of a subjective norm has a positive effect on perceived product capability, and facilitating conditions have a positive effect on perceived product usability. Our findings imply that psychological conflict resulting from the forced adoption of a product leads consumers to rely much more on important referents' opinions to evaluate product capability. They also imply that consumers rely on external assistance to learn how to use a new product. Assimilation of a social norm can encourage consumers encountering a forced adoption situation to conform to the expectations of others. Moreover, the suggestions of these others are likely to be treated as treated as an information as evidence of products capability. With respect to facilitating conditions, when a new product is supplied with an additional function, consumers are burdened with one more thing to learn and one more thing to search through when looking for what they want. Because the new function thus is likely to reduce the product's ease of use, external assistance can make it easier for consumers to learn about problems with the new product and further enhance their awareness of its capabilities. Finally, our findings show a link between facilitating conditions and product usability both before and after forced adoption. This result suggests that because consumers' adoption of the new product is not voluntary or based on careful consideration of the product's attributes, learning about how the new product is used can also be forced. Even after consumers have started using the product, they still need external assistance to learn how to use it most efficiently.

Managerial implications

Our research has several managerial implications for marketers who want to promote new products. With forced adoption, consumers' use intentions are associated with product usability in the distant future (before initial use), whereas product capability is relatively important to intention in the near future (after initial use). Thus, for a company that dominates the market for its product line, the development of a new product is likely to be focused not only on continually adding new functions to the product, but also on resolving consumers' problems with using the product. In the initial stages of promoting a new product, marketers should advertise it by stressing its simplicity and user-friendliness compared to the old product. The capability of the product should be emphasized after consumers are attracted by the product's usability. Generally, this is the point at which consumers are about to decide whether or not to purchase the new product. In terms of construal-level theory, it is important to keep in mind that distance can be both temporal and spatial. Companies may need to employ different advertisements in different channels. They should accentuate product usability in advertisements that will be accessed far removed in space and time from the potential purchase, such as in magazines, on TV, or on the internet. On the other hand, ads should stress the product's capability if they are to be accessed close to where and when the consumer will make the potential use.

Our findings suggest that if a firm is beginning to promote a new product featuring major improvements in user-friendliness, it should completely withdraw the old product as soon as the new product is introduced. The reason is that such total replacement creates a forced adoption situation, which we found leads consumers to focus on the new product's usability. In other words, the improvement in product usability becomes a good reason for consumers to purchase the new product. On the other hand, when the main improvements in the new product concern its capability, the company need not withdraw the old product when the new one is introduced. This is because that, consistent with the findings of relative literature [40,7,10], consumers are more concerned about the product's capability when they do not encounter forced adoption. The existence of the old product actually highlighted the advantages of the new product with respect to capability. In short, companies' new product marketing strategies should be based on what characteristics of the new product show the most improvement over the old product. Finally, creating a positive atmosphere around the inevitability of the new product can soften consumers' experience of compulsion. This softer approach might help to reduce the negative repercussions of the compulsion by creating a social norm around using the new product. Our results suggest that this specific social norm can also help to make perceptions of the product's capability more positive and thus encourage favorable behavioral intentions. For example, a marketer might stress how the product protects the environment, an important issue for humanity, by using recyclable products for its manufacture [41].

This strategy could improve consumers' perceptions of product's capability and hence increase their willingness to buy it [41].

Appendix-Questionnaire Items

Subjective norm

V_1: My family/friends think I should use self-service baggage drop.

V_2: Other passengers think self-service baggage drop is wonderful.

Facilitating conditions

V_3: This airline has provided the resources necessary to use self-service baggage drop.

V_4: In general, This airline has supported the use of self-service baggage drop.

V_5: A specific person (or team) is available for assistance with self-service baggage drop using difficulties.

Usability

V_6: The instructions for self-service baggage drop are clear and understandable.

V_7: It would be easy for me to become skilled at using self-service baggage drop.

V_8: Learning to use self-service baggage drop will be easy for me.

Capability

V_9: I would find self-service baggage drop useful.

V_{10}: Using self-service baggage drop would enable me to accomplish check in process more quickly.

V_{11}: Using self-service baggage drop would increase the baggage check-in more smoothly.

V_{12}: Using self-service baggage drop would improve the accuracy of baggage check-in.

Behavioral intentions

V_{13}: I intend to use self-service baggage drop as often as needed.

V_{14}: I prefer to use self-service baggage drop.

V_{15}: To the extent possible, I would use self-service baggage drop frequently.

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