

BRANDING NEXT-GENERATION PRODUCTS

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Abstract

We study the effect of brand name selection on consumer perceptions and adoption of next-generation product innovations. In four experiments, participants evaluated next-generation offerings whose brand names either continued or interrupted the existing naming sequences. The first set of results show that while consumers anticipate enhanced performance on existing product features (i.e., alignable improvements) irrespective of the branding decision, a name change triggers significantly higher expectations of new features (i.e., nonalignable improvements). Next, we examined the implication of this finding for purchase intentions. The added layer of innovation inferred from a brand name change led participants to believe they were exposed to greater risk as well as greater reward. As a result, in the last two experiments we found that situational and dispositional factors influencing the relative salience of these conflicting beliefs ultimately determined whether a particular naming option stimulated or hindered demand.

Keywords: next-generation product innovation, brand name selection, branding, structural alignment theory, consumer inference.

Most product development activities undertaken by firms are aimed at improving existing products (Urban and Hauser 1993). As a result, many industries are characterized by the introduction of successive generations of product models. Intel, for example, has produced almost 20 different versions of its popular microprocessor since the first release in 1971. Over the same period, AMD overhauled its competing product more than 15 times. In the home video game market, the *Wii* is the fifth console developed by Nintendo, Sony has updated the *PlayStation* on three separate occasions, and Microsoft will soon release the third generation of its *Xbox*. Additional examples of generational products can be found in categories ranging from cars and movies to sporting equipment, books, and household appliances.

Interestingly, when one examines the naming decisions of firms bringing next-generation products to market, several distinct practices emerge (figure 1). These range from the repeated use of a single name across multiple generations, as in the case of Cadillac's *Coupe de Ville*, to the use of a completely different name with each new generation, as with the Sega *Master*, Sega *Genesis*, and Sega *Saturn* gaming platforms. Perhaps the most popular approach lies between these two extremes, with many firms choosing to retain a core name across generations, yet add a sequential indicator such as a number (e.g., the *Palm III*, *V*, and *VII* personal digital assistant), a date (e.g., the *Windows 95*, *98*, and *2000* operating system), or even a superlative (e.g., the Callaway *Big Bertha*, *Great Big Bertha*, and *Biggest Big Bertha* golf club).

Insert figure 1 about here

From a conceptual standpoint, the existence of several naming options naturally begs the question of which alternative is most effective. Anecdotal evidence suggests that managers and

industry analysts believe different branding decisions can affect consumer perceptions of product innovation in different ways (e.g., Bott 2008; Rojas 2004). Yet, there is no formal research exploring this effect, the psychology behind it, or the potential consequences for purchasing behavior.

The purpose of our work is to narrow this gap between managerial intuition and academic inquiry. To that end, we develop and test several hypotheses involving two of the most common naming practices. First, we propose that consumers infer greater improvement between successive product versions when the brand name of the latest offering deviates from the existing naming sequence (i.e., a brand name change) than when it is simply extended through the use of a sequential indicator (i.e., a brand name continuation). Second, we argue that underlying this general inference are more specific beliefs about the type of improvement supplied by the firm: though consumers anticipate similar enhancements to existing product features irrespective of the naming decision, a brand name change boosts expectations of added new features. Third, the added layer of innovation evoked by brand name changes leads consumers to believe they are exposed to greater risk (in terms of product failure, learning costs, etc.) as well as greater reward (in terms of product quality, consumption experience, etc.). Because these opposing beliefs ultimately drive adoption decisions, it follows that factors affecting their relative salience at the time of choice should determine whether a particular naming option stimulates or hinders demand.

The remainder of the paper is organized as follows. First, we lay out the theoretical arguments leading to the first two hypotheses – those relating brand name selection to perceived product innovation. Second, we describe two experiments that test these predictions. Third, we return to our theory to consider the implications for purchase intentions and report the results of

two additional experiments. Finally, we discuss managerial implications for firms bringing next-generation products to market and offer a number of potential avenues for future research.

Naming Options and Perceived Product Innovation

One of the most important decisions facing a firm is to choose an appropriate brand name for its product. Brand names are known to help consumers identify a seller's offerings and distinguish them from competing alternatives (Aaker 1996; Keller 1998; Robertson 1989). Research also shows that prior knowledge of a brand can, among others, capture key associations (Keller 1998), aid the recall of product information (Broniarczyk and Alba 1994), lower search costs (Erdem and Swait 1998), and even form the dominant basis of value judgments (Jacoby, Syzbillo, and Busato-Sehach 1977; Smith and Park 1992).

Given the significance of the branding task, it is not surprising that the marketing literature offers an extensive list of criteria relevant to naming individual products (c.f., Keller 1998). What is surprising, however, is the fact that branding decisions involving successive generations of products, which are frequent in practice, have received virtually no attention to date.

What is the likely impact of brand name selection on consumer perceptions of next-generation products? To begin answering this question we turn to existing studies on the adoption of product upgrades (e.g., Fisher and Pry 1971; Norton and Bass 1987; Okada 2001, 2006; Sood and Drèze 2006) and on the psychology of similarity judgments (Gentner and Markman 1994; Rosh and Mervis 1975; Tversky 1977). In particular, we draw attention to the finding that individuals typically judge a next-generation offering by comparing it to the current solution sold by that manufacturer – which occurs as they attempt to identify and make sense of the various

improvements introduced from one product version to the next (Okada 2001, 2006). Building on this result, we ask whether the branding decision affects the process of comparison by acting as an independent signal of product similarity.

The fact that brands and product features are intertwined in the minds of consumers suggests this might be the case (Park, Milberg, and Lawson 1991). In particular, other researchers have already pointed out that people often form instant, robust attitudes about products based solely on their brand names (Zinkhan and Martin, Jr. 1987). In the case of generational products, we argue that a brand name change conveys greater overall improvement than simply continuing the existing naming sequence. We make this claim expecting consumers to associate, across successive generations, brand name similarity with product similarity. This idea is captured by the following hypothesis:

H1: When evaluating a next-generation product, consumers perceive greater overall product improvement from a brand name change than they do from a brand name continuation.

Note that hypothesis 1 only proposes a general link between brand name choice and perceived product innovation. However, the existing literature on structural alignment (Markman and Medin 1995; Medin, Goldstone, and Markman 1995) suggests a more nuanced inference on the part of consumers, one that involves the actual type of innovation expected from the seller.

Motivating the work on structural alignment is the idea that when individuals compare stimuli they perceive any difference as either alignable or nonalignable. An alignable difference relates to some common characteristic of objects, such as when two or more products vary on the

level of a shared attribute. In contrast, a nonalignable difference is a property of one object that has no direct correspondents in other objects, such as when one product offers a benefit that competing alternatives do not (Markman and Medin 1995). Adapting this reasoning to the context of generational products, we can say that a firm introduces alignable improvements when its next-generation offering enhances features that already exist in the current model. For example, successive versions of laptop computers might offer greater battery life, processor speed, and display resolution. Conversely, a firm introduces nonalignable improvements when the next-generation product includes entirely new features. For the category above, common examples of nonalignable improvements include web cameras, fingerprint security, Bluetooth antennas, and so on.

The importance of alignability to consumer judgments and behavior has been demonstrated in several recent articles. For instance, Bertini, Ofek, and Ariely (2009) studied the influence of add-on features on product value, finding that the effect is contingent on whether the added functionality is alignable or nonalignable with respect to the base good. Okada (2006) distinguished between alignable and nonalignable enhancements in her work on product-upgrade decisions, showing that consumers are more likely to buy a next-generation offering when the improvements made to the current version are predominantly nonalignable. Gourville and Soman (2005) demonstrated that the effect of assortment size on brand choice is moderated by assortment type, with consumers demonstrating far greater difficulty in choosing among alternatives varying on nonalignable dimensions than alternatives varying on alignable dimensions. Finally, Zhang and Markman (1998) used alignability to explain how consumers learn about new products and how late entrants in a market can outperform incumbents.

For our purpose, we argue that consumers infer different types of product improvements – alignable versus nonalignable – depending on the seller’s naming decision for the next-generation product. In particular, research already shows that product alternatives are generally thought to be less similar the greater the number of nonalignable differences between them (Markman and Medin 1995; Medin, Goldstone, and Markman 1995). We build on this result to propose the reverse also holds true: consumers generally expect more nonalignable differences the lower the perceived similarity between product alternatives. This prediction, together with the proposition in hypothesis 1 that a brand name change cues greater perceptions of overall product improvement (i.e., dissimilarity), lead us to suggest that while the two naming options may have a similar impact on consumers’ beliefs about alignable improvements, a brand name change cues stronger expectations of nonalignable improvements than a brand name continuation. More formally:

H2: When evaluating a next-generation product, consumers are more likely to expect nonalignable improvements following a brand name change than following a brand name continuation. On the other hand, the naming decision has no differential impact on expectations of alignable improvements.

Next, we report the results of two experiments designed to test these initial hypotheses. In experiment 1, we provided brand names but no product information for seven consecutive generations of a color printer and asked respondents to rate the overall change with each update as well as the likelihood that these models included new features or improved existing features.

In experiment 2, on the other hand, we provided product information but no brand names and asked participants to choose between two naming options – a brand name change or a brand name continuation – for a next-generation Global Positioning System (GPS) receiver that improved the preceding model either on existing or new features.

Experiment 1

Experiment 1 was designed to test hypotheses 1 and 2 in a situation where consumers have access to limited product information other than the brand name. We chose this as our first setting because we wanted to capture the predicted effect of brand name choice without any interference from actual product specifications or other marketplace data.

In the experiment, 78 participants read the following scenario: “A reputable firm in the consumer electronics industry will soon release a new version of its color printer. The model year and name for each of the seven different versions that have been released through the years is shown below.” In one condition (Brand Name Continuation), the series of printers was labeled sequentially from *2300W* to *2900W*. In the other condition (Brand Name Change), the product names for the first four models matched those in the Brand Name Continuation condition (i.e., *2300W* to *2600W*), but the last three models were called *MagiColor*, *MagiColor II*, and *MagiColor III*, respectively. For each generational pair, participants first evaluated the perceived change between versions on a 1 (“very little change”) to 7 (“significant change”) scale. They then judged separately the likelihood that the firm improved the printer by introducing new features and by enhancing existing features (1 = “not at all likely,” to 7 = “very likely”).

Unless stated otherwise, participants for all the experiments reported in this paper were registered members of a subject pool managed by a large business school in the United States. At the time of the experiment, this pool had 4,223 active members with a median age of 25. Approximately 58% of the members were female and 87% had completed undergraduate education. Respondents were selected at random and recruited via e-mail. They were informed that the survey involved a hypothetical scenario, that there were no right or wrong answers, and that they should only consider their own preferences when answering. Participation was voluntary, with a \$5 payment upon completion. The experiments were carried out online.

Figure 2 graphs the mean perceived change across conditions. We examined the responses in a 2 (Naming Option) \times 6 (Generational Pair) mixed-factorial analysis of variance (ANOVA). This analysis revealed a marginally significant main effect for Naming Option ($F(1, 76) = 2.95, p = .090$), with a brand name change ($M = 3.35$) leading to slightly greater perceptions of product change than a brand name continuation ($M = 2.94$). We also observed a significant effect for Generational Pair ($F(5, 380) = 16.62, p < .001$), as evidenced by the positive linear trend in evaluations under both naming conditions. More important, these effects were qualified by the expected Naming Option \times Generational Pair interaction ($F(5, 380) = 9.51, p < .001$). When we compared the mean scores for each evaluation across naming conditions, the transition from the fourth to the fifth generation was the only contrast that returned a significant difference. Consistent with hypothesis 1, respondents anticipated greater product change when the latest version was named *MagiColor* ($M = 4.86$) than when it was named *2700W* ($M = 2.94, t(76) = 5.65, p < .001$).

Insert figure 2 about here

Next, we analyzed the participants' beliefs about the type of innovation taking place. With respect to alignable improvements, a *t*-test confirmed that respondents had similar expectations irrespective of whether the fifth-generation printer was called *MagiColor* ($M = 5.09$) or *2700W* ($M = 4.71, p = .332$). As anticipated in hypothesis 2, however, this was not the case when we asked about the nonalignable improvements. Here, participants believed the firm was more likely to introduce new features when the brand name was changed ($M = 5.39$) than when the current sequence was extended ($M = 3.53, t(76) = 4.86, p < .001$).

One potential limitation of this first experiment is that participants were presented with the entire range of printer models before answering any of the dependent measures. It is possible that participants in the Brand Name Change condition understood the objective of the study and adjusted their responses across the entire sequence accordingly. A second concern is that the term *MagiColor* itself accidentally induced inferences about the quality of the product. To address these concerns, we ran a follow-up experiment ($n = 97$) in which we (a) replaced the name *MagiColor* with the more neutral *MagicPrint* and (b) presented the printer models sequentially such that at each step participants rated product change without any knowledge of future upgrades. The results were consistent with those of the main study.

In sum, the results of experiment 1 confirm the intuition that consumers associate brand name changes with greater product innovation. They also provide initial evidence that underlying this general inference are different expectations of the type of innovation provided by the firm – in particular, that brand name changes are more strongly associated with nonalignable improvements. The goal of experiment 2 was to replicate this last finding in a different product category and in a setting where participants had more product information at their disposal.

Experiment 2

Sixty-six participants were asked to read a short scenario in which they learned about an in-car GPS receiver sold since 2003 by the firm Garmin. Respondents were told that the first five generations of this device had been named sequentially from *RoadRunner 610* to *RoadRunner 650*. A new, sixth version, however, had not yet been branded. In contrast to experiment 1, participants now saw a table listing the technical specifications of the fifth- and sixth-generation products (see table 1). Importantly, information about the sixth generation was manipulated between subjects such that the main improvements were either alignable or nonalignable. The participants' task was to read the scenario and indicate which of two brand names – *RoadRunner 660* or *StreetPilot* – they would choose.

 Insert table 1 about here

As a manipulation check, participants were asked to judge to what extent Garmin improved the product by enhancing existing features or by introducing useful new features (separate 1 = “a very small extent,” to 7 = “a very large extent” scales). Consistent with our intent, respondents perceived greater improvement on existing features ($M = 5.81$) than on new features ($M = 4.94$, $t(30) = 3.57$, $p = .001$) when successive generations of the receiver differed predominantly on attributes such as screen size, weight, and battery life. In turn, respondents perceived greater improvement on new features ($M = 5.54$) than on existing features ($M = 3.77$, $t(34) = 5.36$, $p < .001$) when the latest generation of the receiver introduced attributes such as Bluetooth connectivity, voice-prompted navigation, and address look-up.

The main dependent measure was the choice of brand name for the sixth-generation device. Consistent with hypothesis 2, we predicted that participants seeing predominantly alignable improvements would be more likely to select the name *RoadRunner 660* because they associate a continuous naming sequence only with incremental innovation. On the other hand, participants seeing predominantly nonalignable improvements were expected to choose the name *StreetPilot* more often as they associate brand name changes with products that also introduce new benefits. The data confirmed the expected effect ($\chi^2(1) = 4.81, p = .028$). When the product was improved mostly on existing features, 61.3% of respondents chose *RoadRunner 660* as the preferred brand name. When the next-generation device featured mostly new features, however, 65.7% of respondents opted for a change of name to *StreetPilot*.

How Naming Options Drive Purchase Intent

To this point, we have examined the relationship between brand name selection and consumer perceptions of innovation. Across two experiments we established that individuals use branding information to judge the similarity of successive product generations, with brand name changes conveying a greater overall sense of change triggered by expectations of nonalignable improvements. Building on these results, we now turn our attention to the third question outlined in the introduction. Specifically, how does a firm's naming strategy impact purchase intent?

When thinking about consumers' likely reactions to innovation, one possibility is that they generally view new products in a positive light. For example, studies shows that people frequently assume next-generation offerings are superior to those they replace (Ram and Sheth 1989; Rogers 1995). Rogers (1995) refers to the systematic belief that innovations are rewarding

as the “positivity bias.” The positivity bias implies that adoption is more likely as the perceived change from one product generation to the next increases (Okada 2006), which in the present context suggests that firms should always favor brand name changes over brand name continuations.

On the other hand, the literatures on risk handling (Bettman 1973; Dowling and Staelin 1994) and on the costs of innovation adoption (Moreau, Lehmann, and Markman 2001; Ostlund 1974; Ram and Seth 1989) warn that new products can also trigger considerable resistance or disutility if the perceived change is substantial. Taking on a new product can be accompanied by negative emotional reactions and considerable apprehension (Mick and Fournier 1998; Wood and Moreau 2006). Among other reasons, barriers to adoption may arise because the innovation is inconsistent with people’s existing values and habits (Rogers 1995), is difficult to understand or use (Hoeffler 2003; Thompson, Hamilton, and Rust 2005), or is associated with substantial economic or functional costs (Moreau et al. 2001; Rogers 1995). From this perspective, brand name changes should negatively impact purchase intent.

Taken together, these conflicting views and the results of our initial experiments raise the possibility that the appropriate brand name choice depends on people’s relative sensitivity to risk and reward at the time of purchase. Consider, for example, a situation where the potential risk of buying a next-generation product outweighs the potential reward. In this case, we would expect consumers to respond more favorably to a brand name continuation, as this particular option downplays the changes made by the manufacturer. Conversely, in a situation where the potential reward of buying a next-generation product outweighs the potential risk, we would expect a brand name change to fare better because this is the option that signals greater improvement.

The direct implication of this prediction for firms is that they need to understand what factors drive perceptions of risk and reward in the marketplace before they make branding decisions. Of course, one possibility is that the context in which a purchase is considered naturally highlights either risk or reward. To illustrate this idea, consider a situation where the consequences of product failure are significant, making risk more salient. This may occur, for example, when a buyer relies on the product to perform an important task adequately. Under such conditions, people typically focus on minimizing any potential problems, which in turn increases the likelihood that a safer, less innovative product is chosen in the first place (Herzenstein, Posavac, and Brakus 2007). On the other hand, purchase situations where the consequences of product failure are low allow consumers to be more adventurous, therefore increasing the likelihood that a riskier, more innovative product is favored.

The point is that certain situational factors, such as the magnitude of the consequences of product failure in the example above, can affect the relative weight of risk and reward in the minds of consumers. This is important for our research because of the branding implications. Recalling that a brand name change conveys a greater overall sense of innovation – accompanied by heightened sensations of risk and reward – than a brand name continuation, we can formalize the likely impact as follows:

H3: Risk salience interacts with brand name selection such that, when the consequences of product failure are high (low), consumers are more (less) likely to choose a next-generation product following a brand name continuation than they are following a brand name change.

A second possibility is that certain people are simply more sensitive to risk than reward or vice versa. According to regulatory focus theory (Crowe and Higgins 1997; Higgins 2000), different individuals may pursue the same activity with different motivational orientations. Some people may have a promotion focus, which puts emphasis on accomplishments, while others may have a prevention focus, which instead stresses security. In the context of a product purchase, because promotion-focused consumers rely predominantly on advancement tactics, they are more likely to consider the potential reward or gain from their decision (Crowe and Higgins 1997; Higgins 2006). On the other hand, because prevention-focused consumers tend to rely on precautionary tactics, they are more likely to consider the potential risk or loss their decisions entail.

Researchers have already established a general link between regulatory focus and consumer adoption of new products (Herzenstein et al. 2007). We believe this finding can be extended to include the possible moderating role of brand name selection, at least in the context of purchase decisions involving next-generation products. Specifically, we expect consumers with a chronic disposition to be prevention focused – i.e., people that tend to stress the potential risks of an action – to be more likely to choose a next-generation product following a brand name continuation than a brand name change. Conversely, we expect consumers with a chronic disposition to be promotion focused – i.e., people that tend to stress the potential rewards of an action – to be more likely to choose a next-generation product following a brand name change than a brand name continuation. This logic is captured in our fourth hypothesis:

H4: Regulatory focus interacts with brand name selection such that consumers with a prevention (promotion) focus are more (less) likely to choose a

next-generation product following a brand name continuation than they are following a brand name change.

We now describe two experiments designed to test hypotheses 3 and 4. In experiment 3, we manipulated risk salience and naming options in the context of a digital camera purchase and asked participants whether they preferred to repurchase a model they had previously owned (the presumably safer option) or buy the latest version of the same make and model (the presumably riskier option). In experiment 4, we provided short descriptions of two sixth-generation LCD televisions, each following a different naming convention (a brand name change or a brand name continuation), and measured choice as a function of regulatory focus.

Experiment 3

Experiment 3 was conducted with the help of 203 participants. The task required respondents to imagine they were attending the wedding of a close friend. They were told that, as a favor, they had been asked to take photographs of the ceremony. However, because their Ricoh digital camera had recently been stolen, they needed to buy a new one before the event.

Participants were presented with two choice alternatives. One option was simply to repurchase the Ricoh camera model they had previously owned. The second was to buy the next-generation version the manufacturer recently introduced. To facilitate this decision, the scenario provided information on the release date, retail price, and six product attributes (resolution, integrated memory, digital zoom, face detection, motion sensor, and HD-TV input) for both digital cameras (see table 2).

Insert table 2 about here

The experiment crossed two factors – Risk Saliency and Naming Option – in a 3×2 between-subjects factorial design. Risk Saliency was manipulated across three levels. In the Control condition, there was no mention of the importance of taking good photographs. In the two treatment conditions, however, we added a sentence telling participants they were “one of several people taking pictures that day” (Low Risk condition) or “the only person taking pictures that day” (High Risk condition). We reasoned this manipulation would be sufficient to vary the consequences of product failure. Second, we manipulated Naming Option to vary how Ricoh branded its next-generation camera. The stolen model, named *FS-E40*, was preceded by three versions labeled sequentially from *FS-E10* to *FS-E30*. In the Brand Name Continuation condition, therefore, the latest version was called *FS-E50*. In contrast, in the Brand Name Change condition we used the name *Spectra*.

After reading their respective scenario, participants first indicated which of the two digital cameras they would rather buy using a 1 (“definitely the *FS-E40*”) to 7 (“definitely the *FS-E50/Spectra*”) scale. Second, we asked them to study the changes from the *FS-E40* to the *FS-E50/Spectra* and judge Ricoh on (1) overall improvement to the product, (2) improvement made to existing features, and (3) improvement made by adding new features on separate 1 (“a very small improvement”) to 7 (“a very large improvement”) scales for each factor. Third, we checked perceptions of risk and reward from adopting the next-generation camera with two separate questions (1 = “not at all risky/rewarding,” to 7 = “very risky/rewarding”). Finally, we also measured how appealing the brand names *FS-E50* and *Spectra* were on a 1 (“not at all appealing”) to 7 (“very appealing”) scale.

We begin our analysis of the data with the last two questions. A 3×2 full-factorial ANOVA on brand name appeal confirmed that participants found the names *FS-E50* ($M = 5.02$) and *Spectra* ($M = 5.24$) equally appealing ($p = .301$). The main effect of Risk Salience and the interaction effect also failed to reach statistical significance (both p -values $\geq .671$).

Next, we conducted similar ANOVAs using perceived reward and perceived risk as the dependent measures. As was the case with brand name appeal, we found no significant effect in the first test (all p -values $\geq .164$). However, when we looked at perceived risk we observed the expected main effect of Risk Salience ($F(2, 197) = 13.96, p < .001$; remaining p -values $\geq .371$), with participants in the High Risk condition ($M = 4.35$) reporting greater perceptions of risk than participants in either the Control ($M = 3.58, t(200) = 3.02, p = .003$) or Low Risk ($M = 3.03, t(200) = 2.22, p = .028$) conditions. Together, these results suggest that our manipulation of the consequences of product failure was sufficient to influence perceived risk but leave perceived reward unaffected.

The main analysis focused on purchase intention and the three measures of perceived improvement between product generations. First, a 3×2 full-factorial ANOVA on overall improvement yielded the main effect for Naming Option predicted by hypothesis 1 ($F(1, 197) = 5.24, p = .023$; remaining p -values $\geq .795$), with participants in the Brand Name Change condition reporting a higher mean score ($M = 5.79$) than their counterparts in the Brand Name Continuation condition ($M = 5.42$). Second, we examined the data pertaining to alignable and nonalignable improvements. Note that hypothesis 2 predicts no difference across naming options in the first case but significantly higher evaluations following a brand name change in the second case. Consistent with this, the manipulation of Naming Option had no apparent effect on how the improvements made by Ricoh to resolution, integrated memory, and digital zoom were

perceived ($M_{\text{Brand Name Change}} = 5.39$ vs. $M_{\text{Brand Name Continuation}} = 5.21$; $p = .252$). However, participants in the Brand Name Change condition did rate the addition of face detection, motion sensor, and HD-TV input to the camera more favorably ($M = 5.47$) than participants in the Brand Name Continuation condition ($M = 5.03$, $F(1, 197) = 4.85$, $p = .029$). Across these two tests, the remaining main and interaction effects all failed to reach statistical significance (p -values $\geq .518$).

Finally, in a 3×2 full-factorial ANOVA on choice we observed a main effect only for Risk Salience ($F(2, 197) = 6.15$, $p = .003$; p -value for Naming Option = .453), where subsequent t -tests revealed a significant difference between the High Risk condition ($M = 5.02$) and both the Control ($M = 5.58$, $t(200) = 2.22$, $p = .028$) and Low Risk ($M = 5.90$, $t(200) = 3.50$, $p = .001$) conditions. More important, this result was qualified by the expected Naming Option \times Risk Salience interaction ($F(2, 197) = 5.63$, $p = .004$). As suggested by figure 3, the manipulation of Risk Salience impacted participants' responses in the Brand Name Change condition ($F(2, 101) = 11.20$, $p < .001$) but not in the Brand Name Continuation condition ($p = .595$). In addition, consistent with hypothesis 3, planned comparisons of the two Naming Option levels in the High Risk condition revealed participants were more likely to buy the next-generation Ricoh camera when it was named *FS-E50* ($M = 5.45$) than *Spectra* ($M = 4.63$, $t(64) = 1.97$, $p = .053$), but the brand name change was more favorable in the Low Risk condition ($M_{\text{FS-E50}} = 5.51$ vs. $M_{\text{Spectra}} = 6.29$; $t(68) = 2.64$, $p = .010$). There was no difference across naming options in the Control condition ($p = .233$).

Insert figure 3 about here

In this third experiment, we wanted to shed light on the relationship between brand name selection and next-generation product adoption. We argued that purchase intentions are affected both by the naming decision and by factors that alter the relative importance of the potential risk and reward of buying a next-generation product. In particular, we predicted that a brand name continuation would be more appropriate when consumers place greater weight on the first dimension, and a brand name change when the emphasis shifts to the second. This is the exact pattern we observed: when the consequences of product failure were significant, the brand name continuation served to reassure participants; but when the consequences were trivial, a brand name change highlighted the potential upside of the latest camera. Note that we observed these effects despite the fact that every participant saw the exact same features and attribute values. In the next experiment we continue with this approach, though our attention shifts to personality traits.

Experiment 4

Fifty-seven graduate students at a business school in the United Kingdom were given a hypothetical purchase scenario in which they had to choose between two different 23-inch LCD televisions, one made by Phillips and the other by Panasonic. The stimulus included a picture of each product as well as short descriptions of key features. Both televisions were sixth-generation products priced at £489.

The first model, the Phillips *23S-2060*, was preceded by five versions labeled sequentially from *23S-2010* to *23S-2050*. This model was described as follows: “Compared to the previous version on the market, the *23S-2060* features improved performance on attributes such as pixel

resolution, sound grading, audio power output, and digital comb filtering. The *23S-2060* also includes the following new capabilities: integrated picture-in-picture, DVI connections, and others.” The second model, the Panasonic *Varion-23*, was branded to interrupt the current naming sequence that ran from *TX23LX1* to *TX23LX5*. The description of this television read: “With the *Varion-23*, Panasonic improved the previous version on attributes such as contrast ratio, digital noise reduction, pixel resolution, and connectivity grading. New features on the *Varion-23* include on-screen menus, RGB-enabled Scart sockets, and more.” The brand names and product descriptions were all pre-tested to be equally appealing to respondents.

Participants were selected at random from the student body and recruited via e-mail to fill out this online survey. The main dependent measure was the choice of television. For each television, we also asked respondents to estimate whether the respective manufacturers improved their product by enhancing existing features or by introducing new features (1 = “enhanced existing features only,” to 5 = “existing and new features equally,” and 9 = “introduced new features only”). Following an unrelated filler task, participants then filled out the Regulatory Focus Questionnaire (Higgins et al. 2001), which included psychometrically distinct subscales for promotion (six items) and prevention (five items). For the analysis, we classified participants as promotion or prevention focused according to a median split on the difference between their subscale scores.

Consistent with hypothesis 2, the participants’ assessment of the type of innovation made by the two companies differed according to the naming strategy each decided to follow ($t(57) = 1.92, p = .060$). For Phillips, branding their sixth-generation television according to the existing naming sequence led respondents to believe the product included predominantly alignable improvements. This was calculated by comparing the mean response ($M = 4.02$) to the midpoint

of the scale ($t(56) = 4.97, p < .001$). In the case of Panasonic, however, adopting the new name met the cued expectations of both alignable and nonalignable improvements ($M = 4.67, p = .160$).

More important, when we analyzed purchase intentions by comparing the participants' choices of television across the two regulatory focus profiles, we observed the preference reversal predicted by hypothesis 4 ($\chi^2(1) = 5.06, p = .024$). Specifically, a chi-square test revealed that respondents with a disposition to be promotion focused were more likely to buy the Panasonic *Varion-23* ($P = 64.3%$) than the Phillips *23S-2060* ($P = 35.7%$), presumably because they relied on advancement tactics and the brand name change accentuated the potential gains from purchase. Conversely, respondents with a disposition to be prevention focused were more likely to buy the Phillips *23S-2060* ($P = 65.5%$, vs. $P = 34.5%$ for the Panasonic *Varion-23*), presumably because they relied on precautionary tactics and extending the existing naming sequence downplayed the potential losses.

In sum, the results of this experiment show that the ability of brand name changes and brand name continuations to stimulate demand is contingent on people's own attitudes toward risk and reward. Prior research had already established a link between regulatory focus and consumer adoption of new products. We extended this association to consider cases where regulatory focus, a personality trait, was expected to interact with brand name selection to affect purchase intentions.

General Discussion

The primary premise of our research is that choosing the right brand name for a next-generation product begins with an understanding of the inferences customers are likely to make.

Specifically, different naming options cue different inferences about the amount and type of product innovation offered by the seller. Critically, because consumers associate innovation with both risk and reward, the branding decision can also influence buying behavior by highlighting or downplaying these dimensions.

Our experiments contrasted the decision to prolong or interrupt an existing naming sequence. First, we argued that a brand name continuation would trigger perceptions of incremental progress, innovation based solely on changes to existing features, and, more important, limited exposure to risk (in terms of product failure, learning costs, etc.) and reward (in terms of product quality, consumption experience, etc.). We also argued that a brand name change would lead consumers to expect substantial progress, changes to existing features as well as the introduction of new features, and significant exposure to both risk and reward. Experiments 1 and 2 confirmed these predictions, exploring the relationship between brand name selection and perceived product innovation in a variety of ways.

Second, we predicted that the impact of these results on buying behavior would be driven by people's own attitudes toward risk and reward or the salience of these factors in the purchase environment. If the purchase context makes risk highly salient or a potential customer is naturally more attentive to risk, a brand name continuation can downplay these concerns and generate greater adoption than a brand name change. However, if the purchase context makes risk trivial or if a potential customer is naturally more attentive to reward, then a brand name change can accentuate these considerations and generate greater adoption than a brand name continuation. Experiments 3 and 4 were designed to test these additional predictions in the context of situational and dispositional motivations, respectively. Consistent with our hypotheses, we found a systematic and predictable effect on product adoption.

On the whole, our research provides evidence that brand names play a pivotal role in shaping consumer perceptions of, and likelihood of buying, a next-generation product. This finding, which we replicated in four different product categories, has clear implications for practice, especially if one considers that consumers might follow their beliefs even in the face of objective information about the degree of change between successive product versions.

At first glance, firms may find appealing the thought of using a new brand name to signal an important innovation. After all, the positivity bias described by Rogers (1995) suggests that consumers generally view innovation in a favorable light. Plus, our experiments showed that new brand names are more likely to cue expectations of novel features and benefits. However, the main concern is that a new brand name not only leads consumers to believe that they are exposed to greater reward, but also leads consumers to believe that they are exposed to greater risk. Given these opposing beliefs, it becomes important for firms to (1) understand the full range of consumer inferences triggered by their branding decisions and (2) manage expectations such that the positive dimensions are highlighted and the negative ones are downplayed. For instance, firms could analyze the typical processes leading to the purchase of a next-generation product or the different usage situations. If these tend to magnify the potential risk of adoption, then a name change may not be the best branding strategy to follow. Vice versa, if the process or decision context is one that emphasizes the benefits of innovation, then a brand name change is recommended.

Our research has additional implications for the range of marketing activities firms should focus on to complement their branding choices. For example, if a firm chooses to break with an established naming convention in order to reposition a brand or highlight a breakthrough innovation, then it should also take preventive steps to ameliorate any negative implication of that

change. Given that new brands can trigger concerns on issues such as backward compatibility, learning difficulty, or failure rate, it is likely that product demonstrations, extended warranties, and trial periods are more attractive promotional tools than either quantity or price discounts. Moreover, companies would do well to focus their initial efforts on customer segments that favor potential rewards over potential risks. This is what AMD did when it launched a next-generation server processor, the *Opteron*, in 2003. The company initially targeted research labs, financial institutions, and other sectors known for their willingness to experiment with new technologies that hold promise of substantial benefits. When expanding to the broader market, AMD sales people also made sure to start every sales pitch by explaining how existing 32-bit x86-based applications would run smoothly on the new processor (Ofek and Barley 2007). Likewise, companies that decide to capitalize on existing brand recognition by continuing an existing naming sequence need to ensure that their product's improvements stand out. In this case, marketing actions that highlight the relative advantages of the new product (comparison advertising, direct marketing, etc.) might be more appropriate.

Firms also need to keep in mind that the effect of a brand name change might depend on the length of the naming sequence preceding it. Take the example of Adobe and its popular *Acrobat* software for creating PDF files. Because the *Acrobat* program used a numeric sequence to index the first seven generations (*Acrobat 1* through *Acrobat 7*), the recent change to *Acrobat CS* (for *Creative Suite*) for the eighth installment likely fueled perceptions of substantial change. Of course, consumers may fear that PDF files created with previous versions of the software may not open correctly with the new version, or that using the new program will be a frustrating experience. However, these potential obstacles might not be critical for consumers who desire the new features, or they could be overcome with a careful marketing campaign.

In terms of future research, it would be interesting to extend our findings to consider additional boundary conditions and dependent measures of relevance to managers. For example, in the preceding paragraph we suggested that the effect of a brand name change might be weaker when the prior naming sequence is short. To provide initial insight into this question, we decided to conduct a follow-up to experiment 3 where we added a third factor, Generation Length, which manipulated the number of digital camera generations released prior to the two under consideration. In particular, participants ($n = 282$) were informed that there was only one (Short Generation condition) or three (Long Generation condition) predecessors to the camera model they had previously owned. When analyzing choice using separate binomial regressions for each of these two levels, we replicated the results of experiment 3 in the Long Generation condition, observing the same Risk Salience \times Naming Option interaction ($\beta = -2.11$, $W = 8.28$, $p = .004$). However, this was not the case in the Short Generation condition ($p = .422$), which confirms the importance of this moderating factor.

With respect to additional dependent measures, one aspect that comes to mind is price expectations. That is, can brand name selection affect the prices consumers anticipate paying for a next-generation offering? To the extent that product improvements are of value, the findings in this paper suggest that people should expect higher prices following a brand name change than a brand name continuation. To test this idea, we conducted a second follow-up experiment in which 69 participants were shown a list of four consecutive video game consoles. This list included the name, release date, and price of all but the last version. In one condition, these four products were labeled sequentially from *TrueAction* to *TrueAction 4*. In a second condition, the name given to the newest model was *Xtatic*. Results show that participants expected a lower sticker price for the fourth-generation console when it was named *TrueAction 4* ($M = \$211.11$)

than *Xtatic* ($M = \$232.35$; $t(67) = 3.05$, $p = .003$). At least on the basis of this initial experiment, it appears that perceptions of innovation carry over to judgments about market prices.

In our opinion, it would also be fascinating to consider the impact of competition on the effects documented in this paper. In particular, the interesting question is whether the brand name decisions of rival firms influence the inferences about perceived risk and reward that consumers draw from the naming strategy of the focal firm. For example, it was speculated that Microsoft decided to name its second-generation video game console *Xbox 360* rather than *Xbox 2* because it did not want to appear inferior to rival Sony that was getting ready to launch its *PlayStation 3*. Similarly, when AMD began designing its own microprocessors, the company decided to name its first offering *K5* because management believed that rival Intel would soon release a next-generation microprocessor named *586*. Next-generation branding decisions in the face of such competitive dynamics clearly deserve further attention.

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Table 1

Experiment 2: Technical Specifications of Garmin's Fifth- and Sixth-Generation GPS Receiver

Alignable Improvements Condition

	RoadRunner 650	2007 Version
Screen size	4.3" LCD	7.0" LCD
Display resolution	480 x 272 pixels	720 x 408 pixels
Weight	6.2 ounces	6.2 ounces
Internal memory	1 GB	4 GB
Points of interest	6 million	12 million
Battery life	up to 5 hours	up to 8 hours
Warranty	1 year	1 year
MP3 playback	-	Now available

Nonalignable Improvements Condition

	RoadRunner 650	2007 Version
Screen size	4.3" LCD	4.3" LCD
Display resolution	480 x 272 pixels	480 x 272 pixels
Weight	6.2 ounces	6.2 ounces
Internal memory	1 GB	1 GB
Points of interest	6 million	12 million
Battery life	up to 5 hours	up to 5 hours
Warranty	1 year	1 year
MP3 playback	-	Now available
Voice-prompted navigation	-	Now available
Address look-up	-	Now available
Bluetooth connectivity	-	Now available
JPEG picture viewer	-	Now available

Table 2

Experiment 3: Technical Specifications of Ricoh's Fourth- and Fifth-Generation Digital Camera

	Ricoh FS-E40	Ricoh FS-E50* Ricoh Spectra
Release Date	January 2008	January 2009
Market Price	\$190	\$255
Resolution	7.0 megapixels	10.5 megapixels
Integrated Memory	64 megabytes (MB)	128 megabytes (MB)
Digital Zoom	4x	6.5x
Face Detection	-	Now included
Motion Sensor	-	Now included
TV Tuner	-	Now included

* Listed here are the two brand names used in the experiment. Each group of participants only saw one according to the manipulation of Naming Option.

Figure 1

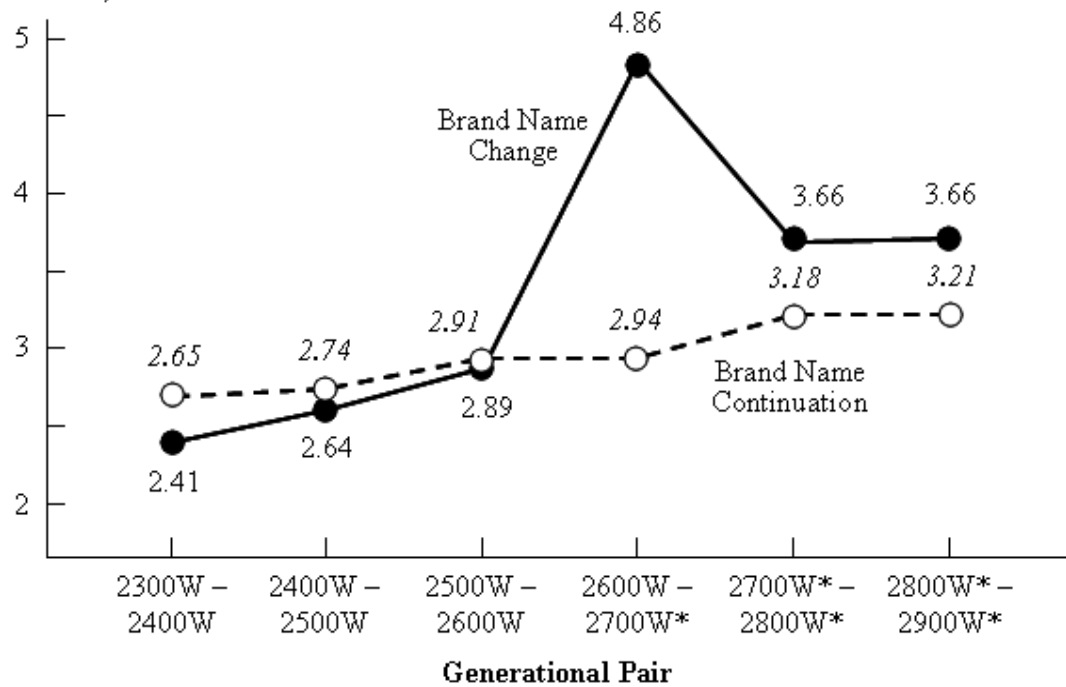
A Classification of Naming Options for Next-Generation Products

Naming Option	Examples
<u>Repeated use of single name</u>	
Continuous production	Cars: Cadillac Coupe de Ville
Renewed production	Cars: Ford Thunderbird
<u>Sequential indicators</u>	
Ordered numerals	Handhelds: Palm III, V, VII Running footwear: Nike Air Equalon I, II, III, IV Video game consoles: Atari 2600, 5200, 7800 Digital cameras: Canon Powershot SD 450, SD 500, SD 550
Explicit use of dates	Operating systems: Windows 95, 98, 2000 Running footwear: Brooks Beast 2002, 2004, 2006
Superlatives	Sporting equipment: Callaway Big Bertha, Great Big Bertha, Biggest Big Bertha
<u>Repeated change of name</u>	Video game consoles: Sega Genesis, Saturn, Dreamcast Nintendo 64, GameCube, Wii Microprocessors: AMD K5, K6, Athlon

Figure 2

Experiment 1: Mean Reported Product Change across Successive Generations of Color Printers*

**Perceived Change Between
Successive Generations
(1-7 Scale)**



* Note: For printers marked with an asterisk, roughly half the participants saw the printer as named (Brand Name Continuation condition), while the other half saw the names MagiColor, MagiColor II, and MagiColor III, respectively (Brand Name Change condition).

Figure 3

Experiment 3: The Effects of Risk Salience and Naming Option on the Likelihood of Buying a Next-Generation Digital Camera

