



Branding Successive Product Generations

Marco Bertini, John T. Gourville and Elie Ofek

**Centre for Marketing Working Paper
No. 06-501
April 12, 2006**

Marco Bertini (mbertini@london.edu) is Assistant Professor of Marketing at London Business School, Regent's Park, London, NW1 4SA
telephone: +44 (0)20 7000 7000 (ext. 3820), fax: +44 (0)20 7724 1145

John T. Gourville (jgourville@hbs.edu) is Professor of Business Administration at Harvard Business School, Soldiers Field, Morgan Hall 163, Boston, MA 02163.

Elie Ofek (eofek@hbs.edu) is Associate Professor of Business Administration at Harvard Business School, Soldiers Field, Morgan Hall 195, Boston, MA 02163.

London Business School, Regent's Park, London NW1 4SA, U.K.
Tel: +44 (0)20 7000 7000 Fax: +44 (0)20 7724 1145
<http://www.london.edu/Marketing>

Copyright © London Business School 2006

In this paper we analyze the effect of changing an established brand name convention on consumer perceptions of next-generation products. In our first study we show that participants infer the level of innovation offered by a next-generation product by the similarity of its name to those of preceding versions. In study 2, we consider the implications of this result for product adoption, demonstrating that such brand name decisions affect both the perceived benefits (quality, technological sophistication, etc.) and the perceived costs (economic and functional risk, learning, etc.) of a potential purchase. From a prescriptive standpoint, our findings suggest that firms should be mindful of the trade-off between these conflicting factors when determining which naming strategy to follow.

The majority of innovative activities undertaken by firms are aimed at improving existing products (Griffin 1997; Urban and Hauser 1993). As a result, many industries are characterized by the phased introduction of successive product generations over time. For example, Microsoft has introduced nine distinct versions of its Windows operating system over the last 21 years, each delivering more capabilities and a friendlier interface than its predecessors. In the home video game market, Nintendo has launched four generations of game platforms since 1986. Sony, Nintendo's rival in the industry, has made three major revisions to the popular PlayStation console in a little over 10 years. Examples of this characteristic pattern of innovative activity can also be found outside of the traditional high-tech markets. Nike's Air Jordan shoe has been updated every year since 1985, Callaway's flagship Big Bertha golf club will soon enter its 11th cycle, Mercedes-Benz's legendary *Sport Leicht* (SL) class now boasts a redesigned sixth series, and so on.

Interestingly, when one examines the branding strategies undertaken by firms engaged in next-generation product innovation, several diverse naming conventions emerge. These strategies fall along a continuum that favors the repeated use of an existing name on one end (e.g., Cadillac Coupe de Ville) and the introduction of entirely new terms on the other (e.g., Sega Master, Genesis, and Saturn).¹ Perhaps most common is a variation on the "no-change" approach in which firms denote newer offerings with a simple descriptor (e.g., Apple Mac OS X Cheetah, Puma, Jaguar) or sequential indicators such as ordered numerals (e.g., Palm I, II, III), dates (e.g., Microsoft Windows 95, 98, 2000), or even superlatives (e.g., Callaway Big Bertha, Great Big Bertha, Biggest Big Bertha).

¹ A phenomenon related to the former strategy is the resurrection of past brands that have been discontinued for many years: the Mercedes-Benz Maybach, the Ford Thunderbird, etc.

The presence of different naming conventions raises the question of what motivates marketers to choose one particular strategy over another. The degree to which firms want to signal novelty and innovation would seem to be an important factor in this regard. For example, firms sometimes decide to “skip” one or more steps in a naming sequence in an attempt to convey greater improvement. TaylorMade, a leading manufacturer of golf clubs, went from the 300 Series straight to the 500 Series (skipping the 400 Series) with this objective in mind.² Other firms have switched naming strategy altogether to communicate certain aspects of the innovation (e.g., Microsoft’s decision to use the name Xbox 360 rather than Xbox 2) or to rejuvenate interest in the brand (e.g., Adobe’s decision to use the name Acrobat CS – for Creative Suite – rather than Acrobat 8.0).³ Yet, despite these efforts by marketers it remains unclear what inferences (if any) consumers draw from brand names and, more importantly, how this information impacts key measures such as product adoption.

The goal of this research is to address these specific questions. To that end, we develop two basic propositions. First, consumers tend to associate a departure from an established naming strategy with greater technological change and innovation. Second, linked to this perception of innovation are expectations about the potential benefits (on quality, technological sophistication, etc.) and costs (on complexity, economic and functional risk, etc.) of product adoption that dictate how successful a given branding strategy will be. These predictions and other related implications are tested in two studies. We conclude with a general discussion of our findings.

² Kramer, Zack (2005), PR Director, TaylorMade Golf Company, Inc.

³ Rojas, Peter (2004), “The Xbox 360?” <http://www.engadget.com>; Wildstrom, Stephen H. (2002), “AOL and MSN: New, but Barely Improved,” *BusinessWeek*, November 11.

NAMING CONVENTIONS AND PERCEIVED PRODUCT INNOVATION

The primary function of different brand elements (names, logos, trademarks, images, etc.) is to identify a seller's goods and services and to distinguish them from competing alternatives. However, consumers also form expectations about what they may or may not like about a particular product based on what they know of its brand (Aaker 1996; Keller 1998). Brands can help people recall important product information (Broniarczyk and Alba 1994). They can also serve as predictive cues about product performance (Erdem and Swait 1998; Janiszewski and van Osselaer 2000; Smith and Park 1992).

The branding literature suggests that one of most delicate decisions faced by marketers is to choose the appropriate name for a product (Aaker 1996; Jacoby, Syzbillo, and Busato-Sehach 1977; Keller 1993). Previous studies have researched the relevant criteria for setting *individual* brand names (Robertson 1987); mostly concentrating on factors such as linguistic meaning (Keller, Heckler, and Houston 1998), congruity between name and product (Meyers-Levy, Louie, and Curren 1994), and "typicality" (Zinkhan and Martin, Jr. 1987). Naming decisions that involve *multiple* product generations, on the other hand, have not received any attention.

In this paper we argue that when consumers evaluate a next-generation product on the basis of its name alone they may draw on what they already know about previous versions to make inferences about attributes, benefits, and so on. The extent to which this process takes place is likely to depend on the probability that a given name is associated with existing knowledge in the consumer's mind. In turn, this likelihood is often shaped by perceptions of similarity (Aaker and Keller 1990; Boush and Loken 1991; Feldman and Lynch, Jr. 1988; Keller and Aaker 1992; Sood and Drèze, forthcoming). While similarity could be based on a number of dimensions

(Boush et al. 1987; Loken and Ward 1990; Smith and Park 1992; Sujan and Bettman 1989), in this research we focus on the likeness of brand names from one product generation to the next.

More precisely, with each successive launch of a next-generation product firms have the opportunity to change the existing brand name. When making this decision, firms are likely to consider to what extent different naming strategies convey key characteristics such as novelty and innovation. At one end of the spectrum, firms may want to signal continuity, compatibility, sustainability, and so on. For example, the decision to use the same (similar) name across multiple versions seems justified when previous generations have enjoyed success in the marketplace and the firm desires to leverage the equity of an established name and associate the newer offering with its predecessor. Similarly, a naming convention that attaches a sequential indicator such as a number or date to an existing name may be able to convey continuity plus some measure of incremental progress. At the other end, firms may prefer instead to signal change, uniqueness, and sophistication. In this context, a move to an entirely new (dissimilar) name seems appropriate as consumers may infer a breakaway from tradition and associate this repositioning with corresponding modifications in the product itself.

These different approaches are displayed in figure 1 together with some examples from practice. In summary, we would expect individuals to perceive greater “change” from one product version to the next when firms introduce a new brand name instead of leveraging the same name across multiple generations. The following study tested this prediction.

Insert figure 1 about here

STUDY 1

In this experiment participants were told that a reputable firm in the consumer electronics industry would soon release a new version of its color printer. They were then shown a timeline that indicated the model year and name for this product plus six preceding generations. The experimental manipulation was carried out between subjects and involved the sequence of names used in this timeline (appendix A). In the first condition, “brand name change”, the naming strategy was changed from a version numbering scheme (2300W, 2400W, etc.) to the name Magicolor followed by a sequential indicator (Magicolor, Magicolor II, etc.) after the fourth generation. In the second condition, “brand name continuity”, the initial convention was adopted throughout the series (i.e., 2300W, 2400W, ..., 2900W). After reading this short scenario participants were asked to estimate how much product change took place with each successive release (1 = very little change, to 7 = a lot of change).

Participants ($n = 78$) were registered members of a subject pool managed by the research center of a large US business school. At the time of the experiment the general population of 5,447 members was, on average, 39% male and 31 years of age. Eighty-seven percent of the members had completed undergraduate education or higher. Participants were selected at random and recruited via e-mail. They were informed that the poll involved a hypothetical scenario, that there were no right or wrong answers, and that they should only consider their own preferences. Participation was voluntary, with a \$5 payment upon completion. The experiment was carried out online.

Results

An analysis of variance (ANOVA) that included the two brand name sequences as a between-subjects factor and the six evaluations (one for each product update) as a repeated measure revealed significant effects for both variables ($F_{\text{sequence}}(1, 76) = 2.95, p = .090$; $F_{\text{evaluations}}(5, 380) = 16.62, p < .001$) and for the interaction term ($F(5, 380) = 9.51, p = .003$). To test whether participants perceived greater product change when a new brand name was introduced we calculated six contrasts comparing the scores for each next-generation printer across the two naming strategies. As expected, the only significant difference was observed for the transition to the fifth version (figure 2). Here, participants estimated greater product change when the printer's name was Magicolor ($M = 4.86$) than 2700W ($M = 2.94, t(76) = 5.65, p < .001$). The three preceding product updates – 2400W, 2500W, and 2600W – had the same brand name irrespective of the sequence used, therefore it was not surprising that participants assessed similar amounts of change for each version ($p_{2400W} = .410, p_{2500W} = .702, p_{2600W} = .926$). Less intuitive, however, is the fact that different naming conventions failed to impact perceptions of innovation for the last two updates, when the names used were Magicolor II or 2800W ($p = .219$) and Magicolor III or 2900W ($p = .306$), respectively. While perhaps surprising, this result was important because it confirmed that the effect detected when the name Magicolor was first introduced was in fact due to the change in the branding strategy rather than the actual semantic difference between names.

Finally, another point that is worth making concerns the overall trend of the responses. A polynomial contrast verified the presence of a significant linear trend ($F(1, 77) = 25.67, p < .001$), which suggests that people not only believe that products improve from one generation to

the next, but also that this improvement increases with experience. This result makes sense if consumers were to believe that firms learn through trial and error, or that sequential releases of the same product demonstrate a certain dedication or commitment by the manufacturer. On the other hand, this trend seems to run contrary to the logic of diminishing returns – i.e., that a product can only be improved so much.

Insert figure 2 about here

Discussion

The results of this first experiment are consistent with our initial predictions. First, participants perceived greater product change when the naming strategy was modified rather than continued. We were also able to verify that this effect was not caused by the actual semantic difference between names. Second, as expected the duration of prior naming strategies moderates the impact of introducing new brand names on the amount of innovation perceived.

While these results are encouraging, a potential limitation of the experimental design we used is that participants were presented with the entire range of printer models before answering any of the dependent measures. Because of this, there is a possibility that participants in the condition with the brand name change recognized our intentions and adjusted their responses accordingly. In an effort to rule out this potential confound we decided to conduct a follow-up experiment in which some participants would be exposed to the information in the stimulus sequentially.

Simultaneous versus Sequential Layout

This second experiment included two major changes. First, as noted above we included a between-subjects manipulation of the way the stimulus was displayed to participants. Two different layouts were used. In one case we replicated the setup of the first experiment, displaying all product versions simultaneously. In the other, we introduced each new printer model sequentially (i.e., on consecutive screens) and had participants estimate product change for each specific update *before* knowing that a subsequent version would become available.⁴ The rationale behind the second layout was that participants would not be able to adjust their responses in anticipation of additional versions and/or a future brand name change.

Second, every participant was presented with the same sequence of brand names: 2300W, 2400W, 2500W, 2600W, and MagicPrint. Therefore, instead of comparing next-generation product evaluations across branding strategies we were interested in analyzing within-subjects the participants' pattern of responses across product updates. Note that in this experiment the name change occurred on the last product version, the sequence was shortened to five generations, and the name Magicolor was replaced with MagicPrint. This last change was made in an effort to limit inferences about the printers' performance on the "color" attribute. The only measure collected was perceived product change, which we assessed on a 10-point scale to try and make the evaluation task more intuitive (i.e., comparable to percentage terms).

⁴ Since the experiment was carried out online we were able to isolate each successive model update by distributing the stimulus across multiple screens. In order to proceed to the next screen participants had to first answer the dependent measure that pertained to that particular update. Note that for this procedure to work we had to omit the model year from the stimulus.

Accounting for these modifications, the final design of the experiment was 2 (layout of stimulus: simultaneous, sequential) X 4 (product updates evaluated: 2400W, 2500W, 2600W, MagicPrint), with the second factor being a repeated measure. Participants ($n = 97$) were recruited from the same subject pool described earlier.

An ANOVA confirmed the expected main effect of the within-subjects evaluations ($F(3, 285) = 65.60, p < .001$) plus a marginal main effect of layout ($F(1, 95) = 3.09, p = .082$). The interaction between these two variables was not significant ($p = .833$). Note that scale ratings in the sequential layout were consistently higher than those in the simultaneous layout (figure 3). However, the lack of an interaction effect demonstrates that people responded similarly to a brand name change irrespective of the way the sequence was presented. To verify this and to re-examine our prediction regarding perceived product change we ran separate sets of contrasts for each layout condition. Participants that had access to the full generation history (as in the first experiment) perceived greater product innovation when a next-generation version was branded MagicPrint ($M = 6.00$) than either 2400W ($M = 3.60, F(1, 42) = 42.42, p < .001$), 2500W ($M = 3.65, F(1, 42) = 38.96, p < .001$), or 2600W ($M = 3.95, F(1, 42) = 29.3, p < .001$). Similar but even stronger results were observed for those that were show each new version sequentially: the shift to MagicPrint ($M = 6.61$) again inducing greater perceptions of change than continuing the original sequence with 2400W ($M = 4.07, F(1, 53) = 66.88, p < .001$), then 2500W ($M = 4.43, F(1, 53) = 52.53, p < .001$), and finally 2600W ($M = 4.74, F(1, 53) = 49.06, p < .001$). Overall, then, the outcomes of these contrasts appear to validate the results obtained in the first experiment.

 Insert figure 3 about here

IMPACT ON PRODUCT ADOPTION

In study 1 we demonstrated that a shift in naming strategy is often accompanied by a commensurate perception of product change. However, while this study examined basic beliefs regarding product innovation, it did not provide any insight on what these convictions may imply for product adoption.

One possibility is that people view innovation in a positive light, which would lead to the conclusion that the greater the perceived change between product generations, the higher the likelihood of purchase. The notion that innovations are *always* going to be beneficial is often referred to as the “positivity bias” (Rogers 1995). This lay theory is quite common among consumers and is triggered by the perception that innovations are inevitably superior both in functional (e.g., better performance) and experiential (e.g., social desirability) terms (Ram and Sheth 1989; Rogers 1995).

However, the marketing literature on consumers decision-making under uncertainty in general (Dowling and Staelin 1994; Erdem and Keane 1996; Kahn and Sarin 1988), and on the risks associated with innovation adoption in particular (Bettman 1973; Hoeffler 2003; Ostlund 1974; Rogers 1995), warns that innovation can also trigger considerable resistance if the changes that take place are perceived to be too significant. Taking on a new technology, even in cases where a previous generation received extensive use, is often accompanied by considerable apprehension (Mick and Fournier 1998). Therefore, barriers to adoption – both real and perceived – may arise because the innovation is inconsistent with existing values, habits, and past experiences; because it is difficult to understand or use; because it is hard to communicate

effectively to others (friends, family, etc.); or simply because it is perceived to involve substantial economic and/or functional risk (Ostlund 1974; Rogers 1995).

Given these conflicting accounts, it appears then that the effect of abandoning an established naming convention on preferences is two-fold. On the one hand, it seems reasonable to think that a new brand name will play a significant role in signaling product benefits to consumers. On the other hand, however, it can also remind people of the costs typically associated with innovation. Therefore, it is the trade-off between the perceived benefits and perceived costs that ultimately determines whether the best strategy is to continue with an existing brand name or to go forward with the change.

Specifically, based on the results of study 1 we argue that a brand name change triggers expectations of high benefits and high costs, while consistency with the naming sequence triggers expectations of low benefits and low costs. Each naming decision has the potential of making the product more appealing. The outcome depends on which of the two opposing factors is more salient at the time of purchase. For example, imagine a situation where the potential risks associated with buying a next-generation product are highlighted. Here we would expect individuals to be more inclined to choose a “safer” alternative (e.g., re-purchasing an older version) when the brand name of the newer offering has changed than when it continues an existing sequence. Conversely, in a context where these risks are downplayed, the decision to introduce a new brand name should increase the relative attractiveness of the next-generation product. In our second study we conducted an experiment that examined this type of situation. The key dependent measure was choice.

STUDY 2

The experiment used a 2 (brand name: DX-500, Spectra) \times 2 (risk environment: high, low) between-subjects design. The stimulus described a situation in which participants ($n = 142$) were asked to take photos at the wedding of a friend (appendix B). Before doing so, however, a decision needed to be made regarding which of two digital cameras to purchase. These cameras were successive generations of the same model. The first alternative, the *old* version, was called DX-400. Participants were told that they used to own this camera, but it was recently stolen. The rationale for including an option to re-purchase a previously-owned product was that we wanted participants to have a “risk-free” alternative to fall back on. This matched well with the objective of the experiment and ensured a strong test of the effect of brand name on people’s preferences. The second alternative, the *new* or *next-generation* version, was called either DX-500 (to continue with the sequence that began with DX-100, the original version) or Spectra (to introduce a new brand name).

To help participants in their decision we provided a table specifying the release date, current price, and four attribute levels (megapixels, memory, focus, and digital zoom) for each camera. The second manipulation involved the salience of the perceived costs associated with buying the next-generation camera. We achieved this by varying the importance of the purchase, such that participants in the high risk condition were told that they would be they only one taking pictures at the ceremony, while those in the low risk condition were told that they were one of several people fulfilling the same task. We hoped this manipulation would highlight the potential risks associated with buying a camera whose performance is uncertain. The brand name would then either magnify or reduce this uncertainty.

After reading the scenario, participants were asked to express their preference (1 = buy the old version, 2 = buy the new version). In addition, participants also had to rate the improvement from the previous to the latest version on each of the four attributes (1 = small improvement, to 7 = large improvement), and to indicate whether the newer offering was more likely to have technical problems (1 = definitely less likely, to 7 = definitely more likely) or harder to learn how to use (1 = definitely easier, to 7 = definitely harder) than the DX-400. Finally, as a manipulation check we asked participants how important it was for them to take good photos at the wedding (1 = not at all important, to 7 = very important). The recruitment of participants followed the same procedure as in study 1.

Results

Manipulation Check. As intended, participants that expected no help taking photographs felt it was more important to take good pictures ($M = 5.54$) than those that knew other people had the same task ($M = 4.56$, $F(1, 138) = 16.42$, $p < .001$). Neither the main effect of brand name nor the interaction effect between this variable and risk environment was significant ($p = .426$ and $p = .719$, respectively).

Choice. The main prediction for this experiment was that the choice share of the next-generation camera would *increase* when its name was Spectra (rather than DX-500) for participants in the low risk condition, but *decrease* for participants in the high risk condition. To examine the data we first ran a binomial logistic regression using brand name and risk environment as explanatory variables. This analysis resulted in a main effect of brand name ($b =$

3.41, $W = 5.36$, $p = .021$), but none of risk environment ($b = .78$, $W = .24$, $p = .623$). More importantly, the anticipated interaction between these factors was significant ($b = .12$, $W = 8.28$, $p = .004$).

Next, we conducted separate chi-square tests to determine whether the pattern of responses matched our prediction (figure 4). As expected, when the perceived costs of buying the less familiar next-generation camera were salient, a name change to Spectra decreased the likelihood that this camera would be purchased ($M_{\text{Spectra}} = 25.6\%$ vs. $M_{\text{DX-500}} = 45.6\%$, $\chi^2(1) = 3.10$, $p = .065$). Conversely, when participants felt that the consequences of taking bad pictures were less serious the choice share of the newer version were higher under the brand name Spectra (78.4%) than DX-500 (51.5%, $\chi^2(1) = 5.59$, $p = .017$). Importantly, note that this interaction was mostly driven by the strong swing in preference caused by the change of name ($\chi^2(1) = 21.14$, $p < .001$). The label DX-500 performed equally across risk conditions ($\chi^2(1) = .243$, $p = .403$).

 Insert figure 4 about here

Improvement on Product Attributes. Earlier we made the argument that a brand name change triggers expectations of high benefits and high costs. To test the benefits side of this statement we asked participants to rate the next-generation camera on how much improvement it offered over its predecessor on four attributes. Unlike study 1, where we elicited generic perceptions of “change,” here we gave participants actual attribute levels and observed how these values were interpreted across conditions. To analyze the data we first averaged the responses across attributes (Cronbach’s $\alpha = .90$). The ANOVA confirmed that participants rated the *same*

objective differences in attribute levels as a greater improvement when the next-generation camera was called Spectra ($M = 5.68$) than when it was called DX-500 ($M = 4.92$, $F(1, 138) = 14.81$, $p < .001$). The main effect of risk environment and the interaction between factors were not significant ($p = .321$ and $p = .269$, respectively).

Technical Problems and Learning Difficulty. These two measures provided an indication of the perceived costs of buying a product that is less familiar. Consistent with what we predicted, participants anticipated more problems with the next-generation camera when it was called Spectra ($M = 4.30$) than DX-500 ($M = 3.47$, $F(1, 138) = 14.50$, $p < .001$). While there was no main effect of risk environment ($p = .205$), the interaction term was marginally significant ($F(1, 138) = 2.87$, $p = .093$). Separate contrasts revealed that brand name had no impact in the low risk condition ($M_{\text{Spectra}} = 3.97$ vs. $M_{\text{DX-500}} = 3.52$, $t(140) = 1.49$, $p = .140$), but had a strong effect in the high risk condition ($M_{\text{Spectra}} = 4.62$ vs. $M_{\text{DX-500}} = 3.42$, $t(140) = 3.91$, $p < .001$).

Similarly, participants also anticipated a harder time learning how to use the new version when its name was Spectra ($M = 4.99$) than DX-500 ($M = 3.97$, $F(1, 138) = 18.42$, $p < .001$). The main effect of risk environment and the interaction between factors were not significant ($p = .183$ and $p = .573$, respectively).

Discussion

The purpose of this second study was to show that brand name decisions have important implications for the perceived benefits and perceived costs of taking on an innovative product. Furthermore, we also suggested that the effect of changing an established naming sequence on

preference is determined by the trade-off between these two conflicting factors. Overall, our findings support these propositions, while also demonstrating that brand name decisions can affect how individuals interpret improvements made on specific attribute levels.

To account for these results we proposed that a brand name change triggers expectations of high benefits and high costs, while consistency with the naming sequence is associated with low benefits and low costs. If this inferential process is in fact tied to expectations, then it would seem reasonable to think that the longer a firm leverages the same brand to market successive product generations, the larger the impact (positive or negative) of a new name once it is finally adopted. Therefore, the effect of changing naming convention on all the measures collected above should diminish or even disappear if the firm's "history" with the preceding name is short-lived.

To test this additional proposition we conducted a quick follow-up experiment in which we reduced the total number of digital camera generations in the stimulus from five to three. Participants ($n = 140$) were presented with virtually the same scenario as in the initial experiment. The only difference was that the two purchase alternatives were now called DX-200 and DX-300 or Spectra.

Table 1 summarizes the main results of this experiment alongside those of the original one. The manipulation of risk environment was again successful ($M_{\text{high}} = 5.61$ vs. $M_{\text{low}} = 4.39$, $F(1, 136) = 32.76$, $p < .001$). More importantly, note that three of the four measures no longer reached statistical significance. Specifically, the use of a shorter naming sequence seemed to cancel out the effect of a brand name change on choice ($p = .422$), on the perceived improvement on attribute levels ($p = .117$), and on the likelihood of technological problems ($p = .173$). Curiously, there was no such effect on the measure of learning difficulty ($p = .013$).

Insert table 1 about here

GENERAL DISCUSSION

Both across and within industries, firms apply different branding strategies to indicate the introduction of new product generations. Clearly a central consideration in the branding of successive product generation concerns the degree of technological change from one installment to the next. In this sense, one might in fact define a “successive product generation” in terms of its difference (perceived or actual) from the previous version. The research presented in this paper makes the simple argument that alternate brand name strategies for next-generation products trigger different consumer inferences and expectations. In turn, these inferences and expectations have important implications for the way consumers perceive the benefits and costs of an offering and, ultimately, the likelihood that a purchase is made. In particular, we showed that the decision to use the same naming convention across multiple product generations limits any substantial perception of innovation; perhaps stirring up instead notions of continuity, compatibility, incremental progress, and other benefits that are more in line with a desire to leverage brand equity. Conversely, a move to an entirely new brand name resulted in enhanced perceptions of innovation and performance, but also ambiguity with respect to the match between product and consumer, economic costs, learning costs, and so on.

The first part of this research argues that participants infer the level of innovation offered by a next-generation product by the similarity of its name to those of preceding versions. We found support for this prediction in study 1. However, because consumers are ultimately the ones

that must adopt or refuse new product generations, the second part of the paper focused instead on the possible link between this generic inference about innovation and product adoption. Here, we made the argument that brand name decisions affect both the perceived benefits (quality, technological sophistication, etc.) and the perceived costs (economic and functional risk, learning, etc.) of a potential purchase. Because a shift to a new brand name is expected to be associated with higher benefits and costs, we then suggested that the decision to follow one naming strategy over the other should be determined by the trade-off between these conflicting factors. Study 2 confirmed this line of reasoning. We observed that different brand name strategies can have the strong impact on choice intention we predicted. In addition, we were also able to show that the influence of a brand name persists even when subjects are given objective (e.g., numerical) information regarding attribute levels.

APPENDIX A

STUDY 1: STIMULUS.

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 different versions that have been released through the years is shown below.

Color printer versions by year

Year	1993	1995	1997	1999	2001	2003	2005
Model name	2300W	2400W	2500W	2600W	[<i>Magicolor</i> / 2700W]	[<i>Magicolor II</i> / 2800W]	[<i>Magicolor III</i> / 2900W]

Please answer the following questions

1. In your opinion, how much change did the firm introduce when it replaced ...

... model 2300W with model 2400W? _____
(On a scale from 1 (very little change) to 7 (a lot of change))

... model 2400W with model 2500W? _____
(On a scale from 1 (very little change) to 7 (a lot of change))

... model 2500W with model 2600W? _____
(On a scale from 1 (very little change) to 7 (a lot of change))

... model 2600W with model [*Magicolor*/2700W]? _____
(On a scale from 1 (very little change) to 7 (a lot of change))

... model [*Magicolor*/2700W] with model [*Magicolor II*/2800W]? _____
(On a scale from 1 (very little change) to 7 (a lot of change))

... model [*Magicolor II*/2800W] with model [*Magicolor III*/2900W]? _____
(On a scale from 1 (very little change) to 7 (a lot of change))

APPENDIX B

STUDY 2: STIMULUS.

In a week you will be attending the wedding of a close friend. As a favor, your friend asked whether you would be willing to take photos of the ceremony. Apparently you will be *[one of several people taking photos that day as the couple asked a number of friends to do the same.] [the only one taking photos that day and the couple is counting on you to take memorable pictures.]*

You gladly accepted the request. Unfortunately, your camera was stolen on the last vacation you took and therefore need to buy a new one for the occasion. One alternative you are considering is to purchase the same exact camera again. This camera is made by a company called Minox, and the model name is DX-400. The DX-400 was the fourth version made of this particular model (DX-100, DX-200, and DX-300 being the three preceding versions).

The second option is to replace the stolen camera with the latest version of that same model. Since your first purchase Minox launched a newer version called *[DX-500, Spectra]*. The following table compares the old and new versions on a range of key attributes:

	Minox DX-400	Minox <i>[DX-500, Spectra]</i>
Release date	January 2003	September 2005
Current price	\$275	\$375
Megapixels	4.0	6.0
Memory	64 MB	96 MB
Focus	6.0 auto	7.4 auto
Digital zoom	3x	4.5x

Please answer the following questions

1. What will you do? _____
(1 = buy the OLD version, 2 = buy the NEW version)
2. Please rate the improvements Minox made by releasing the *[DX-500, Spectra]* on the following:
(On a scale from 1 (small improvement) to 7 (large improvement))
Megapixels _____ Memory _____ Focus _____ Digital Zoom _____
3. In your opinion, how likely is it that the *[DX-500, Spectra]* will have more technical problems (e.g., bugs, hardware malfunction) than the DX-400? _____
(On a scale from 1 (definitely less likely) to 7 (definitely more likely))
4. Do you think that the *[DX-500, Spectra]* will be harder to learn how to use than the DX-400? _____
(On a scale from 1 (definitely easier to learn) to 7 (definitely harder to learn))
5. How important is it that you take good photos at your friend's wedding? _____
(On a scale from 1 (not at all important) to 7 (very important))

REFERENCES

- Aaker, David A. (1996), *Building Strong Brands*, New York, NY: The Free Press.
- Aaker, David A. and Kevin Lane Keller (1990), "Consumer Evaluations of Brand Extensions," *Journal of Marketing*, 54 (January), 27-41.
- Bettman, James R. (1973), "Perceived Risk and Its Components: A Model and Empirical Test," *Journal of Marketing Research*, 10 (May), 184-90.
- Boush, David M. and Barbara Loken (1991), "A Process-Tracing Study of Brand Extension Evaluation," *Journal of Marketing Research*, 28 (February), 16-28.
- Boush, David M., Shannon Shipp, Barbara Loken, Ezra Gencturk, Susan Crockett, Ellen Kennedy, Betty Minshall, Dennis Misurell, Linda Rochford, and Jon Strobel (1987), "Affect Generalization to Similar and Dissimilar Brand Extensions," *Psychology and Marketing*, 4 (3), 225-37.
- Broniarczyk, Susan M. and Joseph W. Alba (1994), "The Importance of the Brand in Brand Extension," *Journal of Marketing Research*, 31 (May), 214-28.
- Dowling, Grahame R. and Richard Staelin (1994), "A Model of Perceived Risk and Intended Risk-Handling Activity," *Journal of Consumer Research*, 21 (June), 119-34.
- Erdem, Tülin and Joffre Swait (1998), "Brand Equity as a Signaling Phenomenon," *Journal of Consumer Psychology*, 7 (2), 131-57.
- Erdem, Tülin and Michael P. Keane (1996), "Decision-Making under Uncertainty: Capturing Dynamic Brand Choice Processes in Turbulent Consumer Goods Markets," *Marketing Science*, 15 (Winter), 1-20.

- Feldman, Jack M. and John G. Lynch, Jr. (1988), "Self-Generated Validity and Other Effects of Measurement on Belief, Attitude, Intention, and Behavior," *Journal of Applied Psychology*, 73 (August), 421-35.
- Griffin, Abbie (1997), "PDMA Research and New Product Development Practices: Updating Trends and Benchmarking Best Practices," *Journal of Product Innovation Management*, 14 (November), 429-58.
- Hoeffler, Steve (2003), "Measuring Preferences for Really New Products," *Journal of Marketing Research*, 40 (November), 406-20.
- Jacoby, Jacob, George J. Syzbillo, and Jacqueline Busato-Schach (1977), "Information Acquisition Behavior in Brand Choice Situations," *Journal of Consumer Research*, 3 (March), 209-16.
- Janiszewski, Chris and Stijn M. J. van Osselaer (2000), "A Connectionist Model of Brand-Quality Associations," *Journal of Marketing Research*, 37 (August), 331-50.
- Kahn, Barbara E. and Rakesh K. Sarin (1988), "Modeling Ambiguity in Decisions under Uncertainty," *Journal of Consumer Research*, 15 (September), 265-72.
- Keller, Kevin Lane (1993), "Conceptualization, Measuring, and Managing Customer-Based Brand Equity," *Journal of Marketing*, 57 (January), 1-22.
- _____ (1998), *Strategic Brand Management: Building, Measuring, and Managing Brand Equity*, Upper Saddle River, NJ: Prentice-Hall.
- Keller, Kevin Lane and David A. Aaker (1992), "The Effects of Sequential Introduction of Brand Extensions," *Journal of Marketing Research*, 29 (February), 35-50.
- Keller, Kevin Lane, Susan E. Heckler, and Michael J. Houston (1998), "The Effects of Brand Name Suggestiveness on Advertising Recall," *Journal of Marketing*, 62 (January), 48-57.

- Loken, Barbara and James Ward (1990), "Alternative Approaches to Understanding the Determinants of Typicality," *Journal of Consumer Research*, 17 (September), 111-26.
- Meyers-Levy, Joan, Therese A. Louie, and Mary T. Curren (1994), "How does the Congruity of Brand Names Affect Evaluation of Brand Name Extensions?" *Journal of Applied Psychology*, 79 (February), 46-53.
- Mick, David Glen and Susan Fournier (1998), "Paradoxes of Technology: Consumer Cognizance, Emotions, and Coping Strategies," *Journal of Consumer Research*, 25 (September), 123-43.
- Ostlund, Lyman E. (1974), "Perceived Innovation Attributes as Predictors of Innovativeness," *Journal of Consumer Research*, 1 (September), 23-9.
- Ram, Sundaresan and Jagdish N. Seth (1989), "Consumer Resistance to Innovations: The Marketing Problem and Its Solutions," *Journal of Consumer Marketing*, 6 (Spring), 5-14.
- Robertson, Kim R. (1987), "Strategically Desirable Brand Name Characteristics," *Journal of Consumer Marketing*, 6 (Fall), 61-71.
- Rogers, Everett M. (1995), *Diffusion of Innovation*, 4th ed., New York, NY: Free Press.
- Smith, Daniel C. and C. Whan Park (1992), "The Effects of Brand Extensions on Market Share and Advertising Efficiency," *Journal of Marketing Research*, 29 (August), 296-313.
- Sood, Sanjay and Xavier Drèze (forthcoming), "Brand Extensions of Hedonic Goods: Movie Sequel Evaluations," *Journal of Consumer Research*.
- Sujan, Mita and James R. Bettman (1989), "The Effects of Brand Positioning Strategies on Consumers' Brand and Category Perceptions: Some Insights from Schema Research," *Journal of Marketing Research*, 26 (November), 454-67.

Urban, Glen L. and John R. Hauser (1993), *Design and Marketing of New Products*, Englewood Cliffs, NJ: Prentice-Hall.

Zinkhan, George M. and Claude R. Martin, Jr. (1987), "New Brand Names and Inferential Beliefs: Some Insights on Naming New Products," *Journal of Business Research*, 15 (April), 157-72.

TABLE 1

STUDY 2: LONG VERSUS SHORT NAMING SEQUENCE.

		“Long” naming sequence			“Short” naming sequence		
		$M_{\text{high risk}}$	$M_{\text{low risk}}$	p -value	$M_{\text{high risk}}$	$M_{\text{low risk}}$	p -value
% of participants choosing new version	Spectra	25.6%	78.4%	.004 ^a	51.4%	62.9%	.422 ^a
	DX-500/DX-300	45.6%	51.5%		54.3%	77.1%	
Improvement on four attributes	Spectra	5.68		< .001 ^b	5.03		.117 ^b
	DX-500/DX-300	4.92			5.30		
Likelihood of technological problems	Spectra	4.30		< .001 ^b	3.99		.173 ^b
	DX-500/DX-300	3.47			3.67		
Learning difficulty	Spectra	4.99		< .001 ^b	4.41		.013 ^b
	DX-500/DX-300	3.97			3.89		

a = p -value for the interaction effect between brand name and risk environment.

b = p -value for the main effect of brand name.

FIGURE 1

A CLASSIFICATION OF BRAND NAME STRATEGIES.

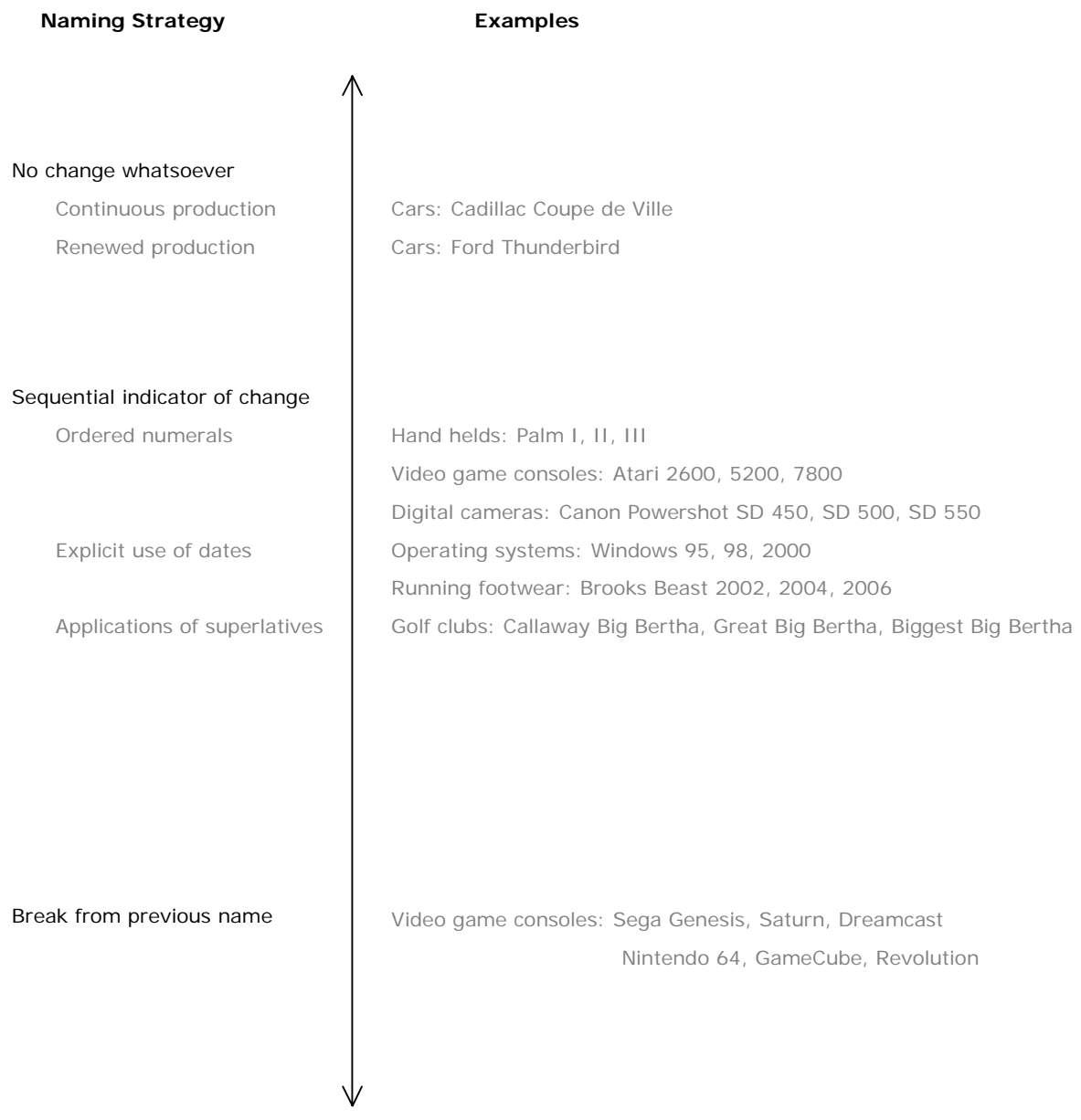


FIGURE 2

STUDY 1: BRAND NAME CHANGE VERSUS BRAND NAME CONTINUITY.

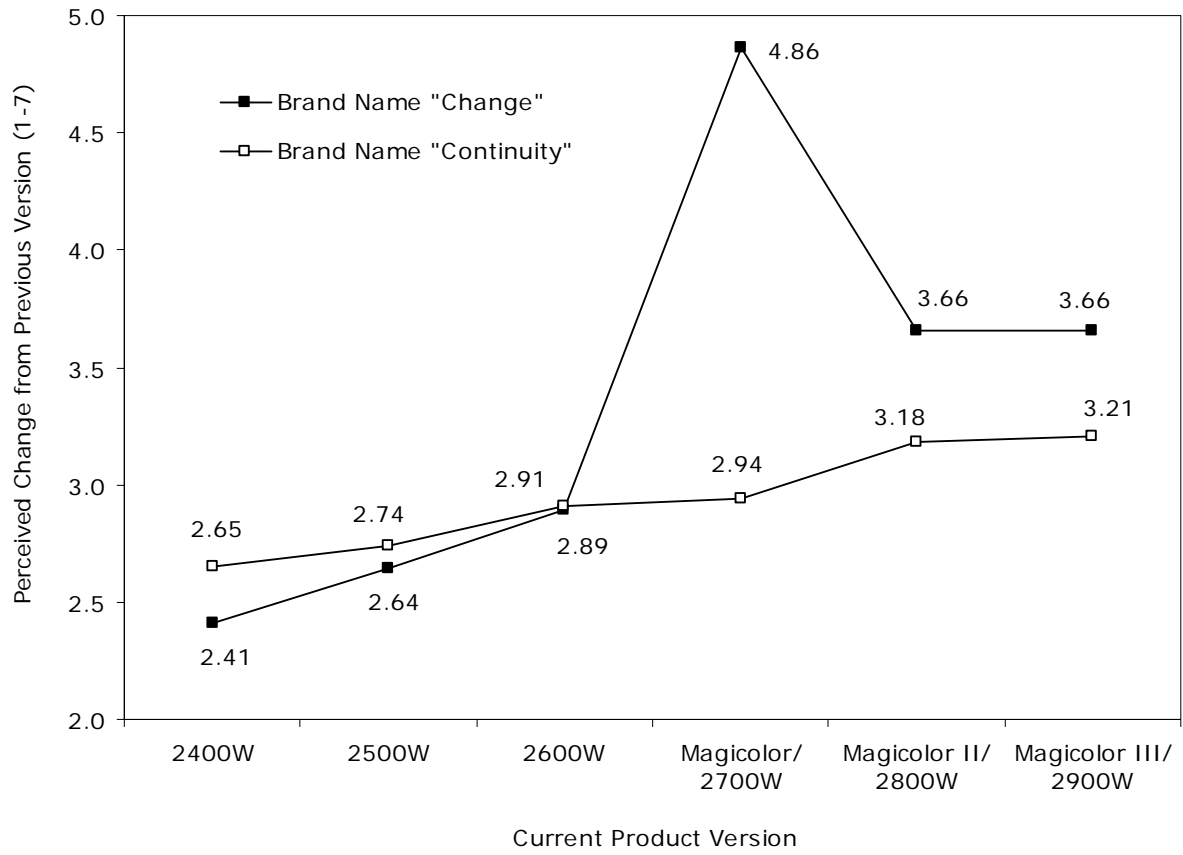


FIGURE 3

STUDY 1: SIMULTANEOUS VERSUS SEQUENTIAL LAYOUT.

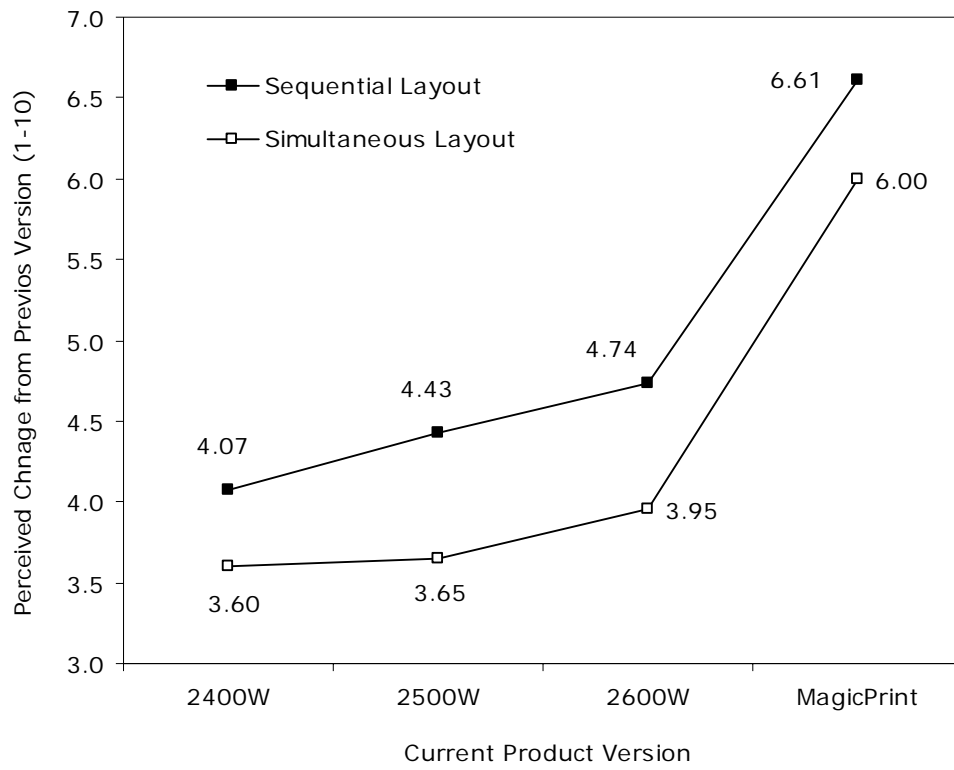


FIGURE 4

STUDY 2: MINOX SPECTRA VERSUS MINOX DX-500.

