



Tactical Launch Decisions for Technological Innovations: The Importance of Customer Innovativeness

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Abstract

Firms launching technological innovations have to pay close attention to tactical launch decisions and have to account for different adopter groups. Our experiment (N=835) with a four-factorial (brand, price, message content, and distribution intensity) between-subject design indicates that for maximal adoption intention a technological innovation should be launched with an established brand, penetration price, benefit-based message content, and intensive distribution. We find that at the beginning of the life cycle, when targeting highly innovative customers, these tactical launch decisions should be adjusted regarding advertisement, which should be feature-based, and distribution, which should be exclusive.

Keywords: tactical launch decisions, adoption intention, customer innovativeness, technological innovation

Track: Innovation and New Product Development

1. Introduction

In today's saturated markets with homogeneous products and intense competition, launching a technological innovation becomes a challenging task for marketing managers. The importance of a successful innovation launch and its effect on performance has been recognized by a considerable stream of research on new product performance (e.g., di Benedetto 1999), diffusion (e.g., Gatignon & Robertson 1985), and adoption theory (e.g., Holak 1988). However, companies still lack knowledge on how to launch an innovation successfully. Managers would benefit from a framework with integrated tactical launch decisions. Tactical launch decisions refer to the "how" of the launch and focus on the marketing mix decisions regarding product and branding, price, communication, and distribution (di Benedetto 1999). Successful tactical launch decisions for innovations influence trial purchase of potential customers as a precursor of adoption. Thus, we will investigate the composition of tactical launch decisions and its impact on trial intention and adoption intention, respectively.

Despite the general consensus, that the marketing mix represents a four-facet instrument to implement the marketing strategy, the majority of prior empirical research has mainly focused on respectively one of the aspects of tactical launch decisions regarding branding (e.g., Klink & Athaide 2010), pricing (e.g., Ingenbleek, Frambach, & Verhallen 2010), promotion and advertising (e.g., Lee and O'Connor 2003), or distribution (e.g., Andritsos & Tang 2010). Those studies who have incorporated the entire mix (e.g., Hultink et al 2000) provide rather descriptive than prescriptive results. In addition, if empirically examined, they concentrate on the perspective of managers. Furthermore, a bias towards industrial goods can be recognized in previous launch research (e.g., Beard & Easingwood 1996). Thus, this study focuses on the launch of consumer goods innovations from the perspective of customers. More specifically, we study technological consumer durables, as this product category involves high challenges for both the company and the customer. During a time span of often less than twelve months firms must develop, launch, and establish a technological innovation. The rapid technological change also creates adoption barriers for customers which must be overcome through adequate tactical launch decisions (Beard & Easingwood 1996)

A major influence on innovation evaluation and adoption has been reported for customer innovativeness (Rogers 2003). Also, Beard and Easingwood (1996) show that the target market for technological innovations is defined in terms of adopter groups that adopt at different stages of the product life cycle and that tactical launch decisions have to be planned accordingly. Thus, marketers have to adjust the marketing tactics when launching a technological innovation to the propensities of potential adopters. Thus, we investigate the moderating effect of customer innovativeness on the relationship between marketing tactics and adoption intention.

2. Hypotheses Development

2.1 Main hypotheses

Among product decisions, an innovation's brand name is a critical determinant for its launch and market success (Keller, Heckler, & Houston 1998). The common branding strategies when launching an innovation are to create a new brand name or to use an established brand name (Hultink et al. 1998), also referred to as brand extension. Smith and Park (1992) post four reasons why customers may favor brand extensions to new brands: purchase uncertainty reduction,

quality cue, use as decision-making heuristic, and established brand equity. In addition, McCarthy, Heath, and Milberg (2001) show that people have a better attitude towards brand extensions than products with new brand names.

H₁: An established brand name compared to a new brand name leads to higher adoption intention.

For a successful pricing it is fundamental to understand how customers perceive prices. There are two generic pricing strategies when launching an innovation: skimming with an initial high price and penetration with an initial low price (Dean 1969). Skimming is often used to signal high product quality, superior benefits, innovativeness, and exclusiveness (Hultink et al. 2000). However, the price can be too high to be in balance with the product benefits. Penetration pricing, on the other hand, stimulates purchases as the innovation becomes affordable.

H₂: A skimming price compared to a penetration price leads to lower adoption intention.

The communication of an innovation forms a critical launch element especially for complex technological innovations (Lee & O'Connor 2003). In accordance with several researchers we focus on message content (e.g., Lee & O'Connor 2003). Two corresponding tactics based on the message content can be identified: feature-based and benefit-based message content (Lee and O'Connor 2003). Feature-based messages consist of rational, objective information as well as facts about the innovation and serve to educate the customer. On the other hand, benefit-based messages contain evaluative views on the benefits to show how the innovation fits customers' needs. Lee and O'Connor (2003) discuss in a study with managers responsible for product launch that when a high learning effort or behavioral changes on the part of the customer is required, feature-based messages may decrease the innovation performance.

H₃: Feature-based message content compared to benefit-based message content leads to lower adoption intention.

The role of distribution in the launch of innovations is relatively neglected. For consumer durables diverging strategies concerning the intensity of distribution can be recognized. Distribution intensity refers to the number of different corporate sales partners a company chooses for providing the innovation (Frazier & Lassar 1996). While the level of distribution of some products is very high – using a great number of sales partners – (intensive distribution), other products from the same category are only available at selected or exclusive points of sale (exclusive distribution). This is especially the case for technological products like smart phones (Andritsos & Tang 2010). Exclusive distribution is often implemented to sustain an exclusive image, to signal high quality, and to benefit from an image transfer (Frazier & Lassar 1996). However, exclusive distribution might also lead to potential switching costs and thus, creates a value barrier. With intensive distribution search and switching costs are reduced and thereby convenience and accessibility are created (Bucklin, Siddarth & Silva-Risso 2008).

H₄: Exclusive distribution compared to intensive distribution leads to lower adoption intention.

2.2 Moderating effects of customer innovativeness

Regarding the branding of innovations, Klink and Athaide (2010) demonstrate that customers do not evaluate brand extensions more favorably than new brands. However, they find that as

customer innovativeness increases, product evaluations for new brands become more favorable. We also assume that highly innovative customers show a higher adoption intention for innovations with new brands than customers low on innovativeness as the elevated risk associated with a new brand appeals to their venturesomeness (Rogers 2003). Thus, as customers high in innovativeness are more risk-taking than customers low in innovativeness (Rogers 2003), the negative effect of a new brand name will be smaller for customers with high innovativeness than for their low innovativeness counterparts.

H_{1a}: The negative impact of a new brand name compared to an established brand name on adoption intention is weaker for customers with high levels of customer innovativeness.

A skimming price might lead to the inference that not many customers are able to afford the innovation and therefore, the number of adopters is rather low. This is searched for by individuals showing a high level of innovativeness. In contrast, customers low in innovativeness rather ask their social peers as trusted sources for advice and confirmation whether the price-quality inference contains actual validity. As long as the peer group will not pay for the innovation and provide advice they will rather show low adoption intention. Furthermore, innovative customers are characterized by a favorable attitude towards risk (Gatignon & Robertson 1985). To them, higher prices constitute a comparatively lower financial risk than with a lower income to rely on. Hence, a skimming price does not represent an adoption barrier for innovative customers.

H_{2a}: The negative impact of a skimming price compared to penetration price on adoption intention is weaker for customers with high levels of customer innovativeness.

Feature-based message content, which helps to educate customers about the innovation with regards to the technology and functions, can be processed and understood only by individuals with a certain level of motivation and knowledge (MacInnis & Jaworski 1989). Normally, innovative customers are also likely to be heavy users of the respective product category (Hoffmann & Soyez 2010) and may therefore possess a more sophisticated knowledge structure. In addition, innovative customers possess a certain level of motivation to process feature-based messages, promoted by the need for cognition which is high for innovative customers (Hoffmann & Soyez 2010). In summary, we believe that a feature-based message does not impede the adoption intention of innovative customers as much as of customers low in innovativeness.

H_{3a}: The negative impact of a feature-based message compared to a benefit-based message on adoption intention is weaker for customers with high levels of customer innovativeness.

The adopter's utility of an innovation is often affected by the number of other adopters. Especially low innovative customers favor an innovation to be already adopted by a great number of customers (Rogers 2003). Innovative customers, on the other hand, do not need a critical mass to adopt, but rather adopt innovations that are not available to the mass. Thus, exclusive distribution, which holds disadvantages like high switching costs, can be perceived favorably by innovative customers. Exclusive distribution is more attractive to them compared to intensive distribution.

H_{4a}: The negative impact of exclusive distribution compared to intensive distribution on adoption intention is weaker for customers with high levels of customer innovativeness.

3. Methodology

Our study used a 2 (new vs. established brand) x 2 (skimming vs. penetration price) x 2 (feature vs. benefit-based message) x 2 (intensive vs. exclusive distribution) between-subjects design. In order to select a suitable technological innovation we asked pretest participants (N=27) to evaluate five different innovations, their price anchors of willingness to pay as well as the established and new brand name. As a result, the technological innovation with the highest perceived radicalness ($M=6.33$, 7 indicating complete agreement) was chosen. Skimming and penetration price were set to 799€ and 349€, respectively. The brand name for the established brand name condition was selected based on the following criteria (e.g., Völckner & Sattler 2006): relevance, high quality perception, and extension fit with smart phones. The brand name *Loewe* was selected. With respect to the new brand name, we created a number of fictitious brand names and asked pretest participants to rate their familiarity with each brand and the brand's fit with smart phones. The brand name *Phonix* was rated most favorably and rated to fit best. Distribution intensity was either intensively available at all major providers or exclusive by one provider. Finally, advertisement was presented with either feature-based or benefit-based information.

In the main study, participants were randomly assigned to one of the 16 treatment conditions. The data was collected via an online experiment. Respondents were told to imagine that their smart phone has broken down and that they are currently searching for a new one. As all providers offer similar contracts their adoption decision is solely based on the new phone. While looking for a new phone they find an advertisement of a new smart phone. After the respective stimulus, participants were asked to answer questions about the innovation and personal characteristics. Overall, the effective sample consists of 835 participants (51% female; modal age: 25-35yrs [35%]). The sample size of each treatment condition differed between 52 and 55.

Adoption intention was measured with four seven-point items ($\alpha = .910$) adapted from Castaño et al. (2008). For consumer innovativeness, we adapted the scale from Goldsmith and Hofacker (1991) and Klink and Athaide (2010), consisting of five seven-point semantic differential items measuring the domain-specific customer innovativeness ($\alpha = .921$).

4. Results

At the time of the study, the selected smart phone had not been launched. The technological innovation was perceived as very radical ($M_{\text{radical}}=5.71$). In addition, there was no significant difference in perceived fit between the established and new brand ($F(1; 834)=.726$, $p>.1$). All manipulation checks for the four manipulated variables revealed significant differences in the intended directions on a $p<.001$ level.

First, the results show that branding has a significant effect on adoption intention ($F(1; 834)=152.49$; $p<.001$) and that the adoption intention is greater for the established brand condition ($M_{\text{established}}=5.37$) than for the new brand condition ($M_{\text{new}}=4.37$). This supports H_1 . Second, in line with H_2 , the pricing of the radical innovation affects the adoption intention significantly ($F(1; 834)=12.240$; $p<.001$): a skimming price leads to a lower adoption intention ($M_{\text{skim}}=4.50$) than a penetration price ($M_{\text{penetration}}=4.90$). Third, a feature-based message ($M_{\text{feature}}=4.58$) leads to a lower adoption intention than a benefit-based message ($M_{\text{benefit}}=4.82$) ($F(1; 834)=4.489$; $p<.05$). Thus, also H_3 is supported. Fourth, the adoption intention in the exclusive distribution condition is lower ($M_{\text{exclusive}}=4.63$) than in the intensive distribution

condition ($M_{\text{intensive}}=4.77$). However, this is not significant ($F(1; 834)=1.615; p>.1; H_4$). In addition, to investigate the relative effect of the different marketing mix components on adoption intention we ran a linear regression with the four manipulated variables as independent variables and adoption intention as dependent variable ($F(1; 834)=43.531; p<.001$). We find that branding has the strongest impact on adoption intention ($\beta=.391, p<.001$), followed by pricing ($\beta=.083; p<.01$) and message content ($\beta=.065; p<.05$). Distribution has no impact on adoption intention ($\beta=.030; p<.1$).

We used a hierarchical regression analysis to test for moderating effects. Furthermore, we built quartiles of customer innovativeness and compared the lowest and highest customer innovativeness paired with the respective marketing mix instrument. Regarding the interaction of branding and innovativeness we see no significant effect on adoption intention ($F(1; 834)=38.690; p<.001; \beta=-0.31; p>.1$). We discover that the effect of an established brand vs. a new brand is almost the same for customers high as for customers low on innovativeness ($\Delta_{\text{high}}=1.077; \Delta_{\text{low}}=1.114$). Thus, H_{1a} is not supported. In addition, we also find no significant interaction effect of pricing and customer innovativeness on adoption intention ($F(1; 834)=38.843; p<.001; \beta=-0.61; p>.1$). Even though not significant, we see that for innovative customers the difference of adoption intention for skimming vs. penetration is less than for customers with a low level of innovativeness. ($\Delta_{\text{high}}=-.222; \Delta_{\text{low}}=-.560$), which is in line with H_{2a} . We find a significant interaction effect of message content and innovativeness on adoption intention ($F(1; 834)=39.525; p<.001; \beta=.139; p<.05$). Supporting H_{3a} , we see that for innovative customers the negative effect of feature-based message compared to benefit-based message on adoption intention is not only weakened but turned into a positive impact ($\Delta_{\text{high}}=.084; \Delta_{\text{low}}=-.477$). Finally, the interaction effect of distribution and innovativeness on adoption intention is also significant ($F(1; 834)=39.099; p<.001; \beta=.096; p<.1$). Thus, the non-significant effect of distribution intensity on adoption intention becomes significant when accounting for customer innovativeness. Again, by comparing mean values of adoption intention we see that for innovative customers the negative effect of exclusiveness becomes a positive one ($\Delta_{\text{high}}=.311$). In contrast, for customers with a low level of innovativeness the effect remains negative ($\Delta_{\text{low}}=-.100$). Thus, we can confirm H_{4a} .

5. Discussion and Managerial Implications

We contribute to existing launch literature by following an integrative approach and investigating the effect of four tactical launch decisions on adoption intention for technological consumer goods innovations. In addition, we add to existing knowledge by accounting for differences due to different levels of customer innovativeness. Firms launching technological innovations have to pay close attention to these launch decisions and marketing managers must be aware of the effects their decisions have on innovation adoption. Our results indicate that for maximal adoption intention a technological innovation should be launched with an established brand, penetration price, benefit-based message, and intensive distribution. In addition, different levels of customer innovativeness showed no impact on pricing and branding. However, we found that at the beginning of the life cycle, when adopting customers are high on innovativeness, the advertisement should be rather feature-based and the distribution exclusive. After the diffusion take-off, when customers become less innovative, the marketing mix should be changed so that advertisement shows a benefit-based message focus and distribution is intensive.

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