## Designing the Marketing Mix When Launching a Technological Radical Innovation

To successfully introduce radical innovations is a key challenge for marketing managers. The correct design of the marketing mix is particularly important for technological innovations as they show rather short product life. Based on Rogers (2003) there is conventional wisdom about what kind of marketing mix design fits best to target different adopter groups. The majority of prior research has mainly focused on one of marketing mix instrument when launching innovations: branding (e.g., Klink and Athaide 2010; Reinders, Frambach and Schoormans 2010), pricing (e.g., Ingenbleek, Frambach and Verhallen 2010), promotion and advertising (e.g. Lee and O'Connor 2003a; Song and Parry 2009), or distribution (e.g., Andritsos and Tang 2010; Calantone, Chan and Cui 2006). Few have incorporated the entire mix and its interactions (e.g., Guiltinan 1999; Hultink et al. 2000). Those who have investigated the entire mix provide rather descriptive than prescriptive results. Their findings are rather a review on new product launch literature or on managers' performance perceptions. In addition, a bias towards industrial goods in previous launch literature can be recognized. Thus, we set our focus on consumer products. Specifically, we chose to study technological consumer durables, as this product category involves high stakes for both the company and the customer.

The aim of this study is to establish a balanced understanding of the marketing mix design when launching a technological radical innovation. In addition, we investigate which tactical decision has the highest influence on adoption intention and how this differs for different adopter groups. Based on diffusion and market launch literature we derive hypotheses. To test the hypotheses, a 2 (pricing: skimming vs. penetration) x 2 (brand: established vs. new) x 2 (distribution: intensive vs. exclusive) x 2 (promotion: benefit-based vs. feature-based) between-subject design was chosen in the form of an online experiment. Altogether 835 participants took part in the experiment. The main effects were tested by using variance as well as regression analysis and the moderating effects were analyzed using hierarchical regression analyses. In general, penetration pricing, an intensive distribution, a benefit-based product description as well as the use of an established brand when introducing a technological radical innovation is the strategy to follow to increase adoption intention. Interestingly, the strongest impact on adoption intention is coming from branding followed by pricing and promotion. In addition, the findings indicate that the marketing mix should be adapted to adopter groups that the company intends to target based on the current product life cycle stage. The findings show that there is no difference in branding and pricing for different adopter groups and that penetration pricing as well as an established brand always leads to a higher adoption intention. However, an adaptation needs to be done for the promotion and distribution design. When targeting innovators and early adopters companies should launch the innovation by using an exclusive distributor and a feature-based advertising. However, when marketing a technological innovation to late majority and laggards a company should focus on benefit-based advertising and intensive distribution.

Key words: Technological innovations, marketing mix design, customer innovativeness

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