Undecidable? Categorization and its effects

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Chapter 6

DISCUSSION AND CONCLUSION
The main aim of this thesis is to gain a better understanding of the effects of categorization in cases where products can be categorized into multiple categories or cannot be clearly categorized into an existing category. This thesis combines insight from organization theory and marketing literature, and this insight is categorized into four theoretical themes. In this final chapter the implications for the main theoretical themes that were identified are discussed, including suggestions for future research based on these findings. In addition, implications for practice are discussed.

6.1 Theoretical implications for the themes

6.1.1 Implications for Theme 1: The effects of spanning categories

Theme 1 discussed the phenomenon of category spanning and the consequences of spanning multiple categories. Many studies published in marketing and organization literature suggest negative consequences of category spanning (Hsu, 2006; Leung and Sharkey, 2013; Moreau et al., 2001; Rajagopal and Burnkrant, 2009). However, there are also studies that demonstrate that, under certain conditions, category spanning might not have negative effects and may even have positive effects on performance (Gregan-Paxton et al., 2005; Moreau et al., 2001; Pontikes, 2012; Rajagopal and Burnkrant, 2009; Wry et al., 2014). Overall, this literature suggests that the effects of category spanning depend on the categories that are spanned (Wry et al., 2014), the contrast of the categories (Kovács and Hannan, 2010), and the signals that producers send to reveal the categorical membership of themselves or their products (Gregan-Paxton et al., 2005; Moreau et al. 2001). This thesis contributes to this literature by providing a framework that helps producers to assess whether or not they should engage in category spanning behavior (Chapter 2), and by identifying conditions that can affect how producers engage in category spanning behavior (Chapter 3).

Chapter 2 focuses on a specific type of category spanning behavior; namely, producers that aim to introduce hybrid products that combine product and service elements into PSS’. As producers struggle with developing and marketing effective PSS’ (Baveja et al., 2004; Neely, 2008; Stanley and Wojcik, 2005; Ulaga and Reinartz, 2011), and knowledge about PSS’ is limited, a framework that can be used by producers to
identify effective PSS' is proposed. The framework builds on the core idea that products and services differ from each other regarding the value that is created by the tangibility or non-tangibility and the interaction or non-interaction between producers and customers. It is argued that the product and service elements of an effective PSS should have sufficient autonomous value to be sold separately on the market. Two empirical studies were used to test these ideas.

The findings of the first study, in which product and service developers were surveyed, shows that the respondents agreed with the proposed difference between products and services (i.e. tangibility and interaction), which was crucial for the proposed framework. The second study examined an offering that combined product and service elements. A Vickrey auction was used to measure whether or not the products and services that made up the PSS delivered synergetic value. This auction provided a relatively quick and valid method – due to the measurement of real buyer behavior – for measuring consumers' willingness to pay for a PSS and its separate elements. The results show that the offering tested in this study, which on first sight looked like a PSS, did not appear to be an effective PSS because customers' willingness to pay did not increase when positioning this offering as a PSS compared to positioning it as a product. This finding also underpins the difficulty of developing effective PSS' that are valued by the market such that it makes economic sense to develop such a PSS. Although the framework was empirically validated, future research is needed to investigate how other actors involved in the new PSS development process use, understand, and agree with this framework.

Second, this research contributes to the literature on the effects of category spanning behavior by demonstrating, in Chapter 3, that producers' strategic design decisions when combining multiple categories into a hybrid product is influenced by their competitive positions (i.e. their market share) and the competitive context (i.e. the emergence of the category) that they operate in. The concept of category markers is introduced to refer to design characteristics that are typical for a certain category, and potentially denote that category. The hypotheses were tested by conducting structured interviews with designers and providing them with a range of possible contextual scenarios for the use of category markers. It was observed that that the use of category markers by producers that engaged in category spanning behaviour was dependent on a product's original market share; the larger this market share was the more likely
producers were to use the category markers of this product when combining it into a hybrid product. Moreover, when both product categories were emerging rather than mature, producers were less likely to use any category markers from these categories for the hybrid product. When only one category was emerging and the other was mature producers were likely to use the category markers from the mature category.

The findings show that producers’ design decisions that influence a product’s appearance, are influenced by the competitive context and their competitive position. Future research, could study whether producers’ experiences and organizational identities could affect their design decisions. For example, producers who are known for their innovative design might try to maintain that identity by making more radical design decisions. Since hypothetical scenarios were used, future research could also investigate producers’ actual design decisions in order to study how their design decisions are influenced.

6.1.2 Implications for Theme 2: Category consensus

Theme 2 relates to the phenomenon of whether market actors agree or disagree on the categorical membership of the same product or producer and the impact of this ‘category consensus’ or lack thereof on performance. Prior studies have examined the degree of category consensus among one type of market actor and its effects (Hsu, 2006). Other studies have examined the degree to which market actors might have different preferences for products or producers that cannot be categorized easily (e.g. Pontikes, 2012; Goldsmith et al., 1998; Midgley and Dowling, 1978). However, none of the existing studies have examined if and how a lack of category consensus between different types of market actors (e.g. producers and consumers) affects performance.

As reported in Chapter 5, this research attempts to fill this gap in the existing literature by examining whether producers and consumers categorize the same product differently, and how this lack of consensus may influence performance. Producers and consumers tend to have different frames of reference for products (Rosa et al., 1999), which could result in such a lack of consensus, referred to here as a classification gap. Data was collected through surveys. First, festival organizers (n=70) were asked to classify their own music festival in
terms of musical genres. Second, the genre classifications of 540 consumers were measured. Third, 1554 potential visitors of music festivals in the Netherlands were asked about their awareness of the festival and whether or not they considered visiting or visited the festival. The main findings of Chapter 5 are that producers and consumers can indeed categorize the same product differently, and that such a classification gap has a negative effect on the market performance of a product. This study also found evidence suggesting that the negative effect on market performance may partly be explained by a lower ‘activation’ in the early stages of a customer's decision making process.

This study demonstrates the negative effects of a classification gap. However, it would also be interesting to investigate the antecedents of a classification gap. It would, for example, be interesting to investigate if producers’ market shares or media coverage have a negative effect on the occurrence of a classification gap.

6.1.3 Implications for Theme 3: Dynamic character of categories

Theme 3 focuses on the fact that categories are dynamic and evolve over time (Rosa et al., 1999). Prior research suggests that radical innovation often triggers the emergence of a new category (Garcia and Calantone, 2002; Rindova and Petkova, 2007; Veryzer, 1998). New, emerging categories offer challenging decisions to producers who want to operate in emerging categories in terms of, for example, their choice of technological and design features of the product and the use of category labels. This research contributes to the extant literature by examining the type of decisions producers make about design features when a category is emerging versus when it is mature (Chapter 3), and the effects that category labels have depending on their degree of emergence (Chapter 4).

The study reported in Chapter 3 (see Section 6.1.1) suggests that producers make different design decisions when a category is emerging versus when it is mature. More specifically, producers seem to perceive more freedom for innovative in the visual design of new products that combine multiple emerging categories. Future research could empirically investigate whether or not producers who design aesthetically innovative products from emerging categories have a
better chance being the ‘founders’ of a dominant ‘visual’ design (cf. Eisenman, 2013). In addition, future research could investigate the role of media coverage in this process. Products that are visually innovative could attract more media coverage, and become more familiar to consumers, and to competitors who might adopt the innovative design as typical for that category.

Chapter 4 examines the effect of providing category labels that represent categories that differ in their degree of emergence. By providing category labels, producers can guide consumers in their categorization efforts. This chapter describes a study that used an online experimental auction and survey to determine whether or not category labels had an effect on consumers’ newness perception and willingness to pay for radically innovative products. The effect of providing labels of categories that differed in their degree of emergence on consumers’ willingness to pay for incrementally innovative products was measured in this study. In addition, the moderating effect of consumers’ innovativeness on the relationship between providing category labels on willingness to pay was measured.

The main finding described in Chapter 4, related to this theme, is that category labels that differ in their emergence have a different effect on consumers’ newness perception and willingness to pay. These findings suggest there must be a fit between the innovativeness of the product and the degree of emergence of the category label; providing a mature category label when advertising a radically innovative product has a negative effect on consumers’ evaluations. Future research could further explore the importance of the fit between innovativeness of the product and how that product is communicated. More specifically, it would be interesting to study the effect on consumers’ willingness to pay and newness perception of an innovative product that is explicitly compared to a product from an emerging category versus a mature category. Research could also study the effects on willingness to pay and newness perception of products that have radically innovative technologically features with a ‘retro look’, and vice versa.

6.1.4 Implications for Theme 4: Communicating category membership

The fourth theme relates to communicating category membership. Producers can signal the category membership of themselves and their
products by deliberately providing – or deliberately not providing – visual and textual category cues. Consumers may use category cues in order to decide to which alternatives the product should be compared to, which helps them to understand and judge the value of the product (Mogilner et al., 2008). Category cues can be textual and visual. Although studies in organization theory (e.g. Eisenman, 2013; Grodal et al., 2014; Petkova, 2007) and in marketing (e.g. Gregan-Paxton et al., 2005; Goode, Dahl, and Moreau, 2013; Moreau et al., 2001) have addressed the effects of category cues on consumers categorization, more knowledge is needed to provide a detailed understanding on the effects of category cues that communicate products’ or producers’ categorical identity. This thesis contributes to extant studies on category cues by providing conceptual clarity, proposing the concept of category markers (Chapter 3), and showing the importance of the correct use of category labels, as these can have an impact on product evaluation (Chapter 4).

Chapter 3 conceptually develops the concept of category markers. Category markers are category specific design characteristics that can be applied by producers to a product in order to reveal the categorical identity of the product, but that do not significantly affect the value of the product as a member of a particular category. Previous studies that examine the effect of category cues are often less clear on the conceptual understanding of category cues. Goode et al. (2013), for example, use category cues to refer to both brand names as well as the typicality of the overall design of the product. However, those cues might also signal other things, such as authenticity, and status, and might directly affect consumers’ evaluations of the product. The concept of category markers provides a more nuanced concept to study the effect of design on consumers’ categorization efforts.

The findings from Chapter 4 (see also section 6.1.3) show that category labels can signal a products’ newness and can have an effect on consumers’ willingness to pay. These findings contribute to studies on categorization by highlighting the importance of category labels, and demonstrating that category labels act as category cues, and they can directly influence consumers’ newness perceptions and willingness to pay. Although this effect was studied at a product level, labels also play a role at a producer level because producers are labeled by others and by themselves. In the latter case, producers use category labels to position themselves in the market – for example by means of press releases (Pontikes, 2012) – which affects their organizational identity (Gioia et al, 2010; Ravasi & Schultz, 2006; Scott and Lane, 2000).
Future research could further investigate this category marker concept by examining the effect of category markers on consumers’ categorization, willingness to pay, and newness perceptions when using or not using category markers. In addition, it would be interesting to study if and how the number of category markers influences consumers’ evaluation and categorization of a product, and whether this depends on the degree of emergence of the product category, or if it depends on whether or not the product is spanning multiple categories.

6.2 Practical implications

The findings in this thesis provide interesting implications for practice. In general, the findings point towards the importance of the effects of categorization for producers. Categorization is especially important in cases where consumers are undecided about the categorical membership of products, because they are difficult to categorize or can be categorized into multiple categories, as is often the case with innovative products. Therefore, in this section the practical implications for producers who primarily focus on developing and offering innovative products are discussed. Based on the findings from this research, this section provides practical implications for the development phase of innovative products and the market phase of those products.

6.2.1 Practical implications for the development phase

The framework for classifying PSS’ described in Chapter 2 is not only useful for scholars who study PSS’; it is especially useful for producers who are developing PSS’ as producers seem to consider the realization of effective PSS creation a major challenge (Ulaga and Reinartz, 2011). This framework provides producers a useful tool to make decisions about combining the product and service elements that make an effective PSS. The first step is to identify whether or not the products and services that are being combined have autonomous value on the market. Second, producers should examine the degree of tangibility of interaction of the chosen products and services that they are planning to combine in a PSS. To develop a ‘pure’ PSS, there should be a high degree of tangibility (product elements) and a high degree of interaction (service elements),
which are valued by consumers. In addition, these products and services should be combined in a coherent, synergetic fashion.

During the development process of new products producers must make decisions regarding the visual design of the product. The results from Chapter 3 suggest that producers’ design decisions are influenced by their competitive positions and the competitive context that they operate in. The concept of category markers is introduced, which designers can use to make strategic design decisions, since applying category markers to the design of a product will affect the way the market categorizes that product. Therefore, producers should carefully study the product categories in which they are planning to operate during the development process in order to a) identify the extent to which the category is emerging and b) identify the category markers. This can be done, for example, by comparing alternatives and identifying similarities in the products’ design. No similarities or few similarities indicate that the category is emerging because no dominant ‘visual’ design has been established. In cases where producers can identify category markers, they may want to test them among consumers to check if these markers affect consumer categorization. Misidentifying category markers or using category markers in an inappropriate way can lead to mis-positioning products or to the occurrence of a classification gap (as studied in Chapter 5); this may have negative effects on product performance.

The results from Chapter 5 suggest that producers should assess whether there is a classification gap between them and their consumers. A classification gap exists when producers and consumers categorize the same product differently. Since such a gap can have serious consequences on the market performance of products, producers should try to prevent the emergence of such a gap by carefully investigating how consumers categorize their products and interpret certain category cues during the development phase. During the development phase of the product, producers should compare the perception of consumers to their own perception (e.g. by means of focus groups, interviews, or surveys); based on that comparison they should make decisions such that they and their consumers categorize the same product similarly. This is especially important for cases in which producers put radically innovative products on the market because those products are more difficult to categorize.
6.2.2 Practical implications for the market phase

Producers who put innovative products on the market might benefit by guiding consumers in their categorization efforts. Thesis describes two types of cues that producers can use to signal the categorical identity of new products. First, the concept of category markers was proposed, which are visual design elements that are applied to the product during the development phase. Second, the effects of category labels were discussed. Category labels can be used when advertising the product. The findings presented in this thesis highlight the importance of carefully selecting category labels when advertising new products. For example, the results show that by providing a mature label when advertising a radically innovative product, consumers’ willingness to pay is negatively affected. Therefore, producers might benefit from carefully selecting labels and ensuring that those labels fit the innovativeness of the product.

Producers can accomplish this by conducting proper market research and identifying which category labels are used – and by whom – for the same product. As mentioned previously, in the early stages of a category many labels might be in use (Grodal et al., 2014), which makes it important to identify all of those labels make an informed decision about which labels to use. Moreover, identifying these labels is also important for preventing possible negative consequences of a classification gap that might occur if an inappropriate category label is used. If producers are familiar with the category labels that consumers assign to their products then advertising can be adjusted accordingly.