

Marketing capabilities and innovation outcomes as mediators of the relationship between innovativeness and SME performance

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Abstract:

The purpose of this study was to test the roles of marketing capabilities and innovation outcomes in the relationship between innovativeness and SMEs performance as a way of understanding this phenomenon. Data were collected in a sample of Brazilian firms in the Information and Communication Technology (ICT) sector. Structural Equation Modelling with Partial Least Square was used to test the study hypotheses. Our results showed that the relationship between innovativeness and performance is mediated by the '*marketing capability -> innovation outcomes*' path. This is a valuable insight as it helps to explain the mechanisms through which firm performance is improved by innovativeness. Therefore, innovativeness is necessary but not enough to determine firm performance. Companies need to consider the central role of marketing capabilities, which enables them to transform innovativeness into innovation outcomes and, finally, improves firm performance.

Keywords: Marketing capabilities, Innovativeness, Performance

Track: Marketing Strategy and Theory

1. Introduction

Innovativeness is defined as the openness to new ideas, and it is considered an element of the organizational culture (Hurley and Hult, 1998). It reflects a continuous search for innovation by the management team, broad acceptance of failure, and proactiveness to put new knowledge into practice (Lumpkin and Dess, 1996). Overall, the business literature had put great effort to understand the impact of innovativeness on firm's performance (see Rubera & Kirca, 2012). However, despite its acceptance in explaining firm results, recent studies have shown that innovativeness may not be directly linked to the performance of small and medium-sized enterprises (SMEs) (Grissemann, Plank, and Brunner-Sperdin, 2013; Kmiecziak et al., 2012; Yap et al., 2018). Buli (2017) argues that this relationship does not happen in SMEs because these companies lack technical skills, adequate infrastructure, and productivity. Thus, it can be suggested that exist a gap in the understanding of the mechanisms that enable innovative SMEs to achieve higher performance (Aksoy, 2017). Marketing capabilities and innovation outcomes could represent these mechanisms.

The literature emphasizes innovativeness as an antecedent of marketing capabilities (Menon et al., 1999; Theodosiou, Kehagias & Katsikea, 2012; Weerawardena & O'Cass, 2004). The openness to new ideas, which is a characteristic of innovative environments, incentive firms to search for new perspectives and to be proactive. This, in turn, will result in better marketing capabilities that enhance the firm's abilities related to customer targeting, understanding customer needs, and marketing of new products (Parry et al., 2012). The literature also stresses the influence of innovativeness on innovation outcomes (Bucktowar, Kocak & Padachi, 2015; Uhlaner et al., 2013). Innovativeness can foster firms' innovative ideas, which are required for the development of innovations (Grisseman, Plank, and Brunner-Sperdin, 2013). Both marketing capabilities and innovation outcomes are important predictors of firm performance (Kostopoulos et al., 2011; Ngo and O'Cass, 2012).

Although these relationships seem to be essential to understanding SME survival and growth, few studies have emphasized this perspective in both marketing and innovation literature. Therefore, some gaps remain unexplored. For example, the contradictions regarding innovativeness-performance relationship suggest the need for further studies in the SME setting. Specifically, the influence of innovativeness on innovation results and marketing practice in small firms is not well understood (Aksoy, 2017). Although SMEs are innovative, they lack abilities to link customer needs to new ideas (Parry et al., 2012). Moreover, notwithstanding the potential mediating effect of marketing capabilities on the innovativeness-performance relationship, it surprises the dearth of research on the influence

of effective marketing development on performance in SMEs (Jayawarna et al., 2014). Most of the researchers explore the role of marketing capabilities, as a marketing practice, in enhancing performance in large firms and the SME setting remain unexplored in this regard (Aragón-Sánchez and Sánchez-Martín, 2005; Daspit and D'Souza, 2017; Walsh and Lipinski, 2009; Foroudi et al., 2017; Jin, Jung, and Jeong, 2018; Moreno, Pinheiro, and Joia, 2012).

To fulfill these gaps the present paper aimed to analyze the roles of marketing capabilities and innovation results on the innovativeness-performance relationship. A survey with Brazilian SMEs of the ICT sector was developed. The ICT sector is known by a high rate of innovations in products and processes, a high concentration of knowledge and shorter product life cycles (Akman & Yilmaz, 2008), which implies the constant reformulation of strategies to maintain competitive advantages.

This paper is organized as follows: on the next section we briefly review the theoretical background on which we relied to develop the study's hypotheses; then we introduce the methodological procedures developed to assure validity and reliability to our results; thus, we present and discuss our results. To conclude, we acknowledge the implications of the results for entrepreneurship and marketing theory and practice, outline the main limitations of the paper, and make some suggestions for future research.

2. Theoretical background and Study Hypotheses

2.1 Innovativeness and Innovation outcomes

According to Weerawardena (2003), innovativeness translates into an organizational environment that supports new ideas and creative processes that can lead to innovative results such as new products, processes, and technologies. Therefore, we understand innovativeness as an organizational culture that fosters the firms' innovative ideas, which are required for the development of innovations (Grisseman, Plank, and Brunner-Sperdin, 2013).

The major interest in the study of innovativeness comes from the idea that innovative companies are better able to develop innovations (e.g., Bucktwar, Kocak & Padachi, 2015; Uhlaner et al., 2013). Although it seems a logical argument when someone looks to SMEs, few research evidence attest the direct link between innovativeness and innovation outcomes (Augusto & Coelho, 2009).

A common mistake of SMEs is the narrow understanding of innovation. Overall, SMEs' managers believe that what a customer wants are the most innovative products in the market. Consequently, most SMEs have an innovative culture, and focus on new product development but cannot find the balance between the level of innovation and customer needs

(Parry et al., 2012) which is required to develop innovation outcomes. Innovation outcomes encompass more than just product innovation. It is a broader concept that considers a set of different elements, such as the product's quality, product exclusivity, and success in launching new products (Langerak, Hultink & Robben, 2004; Ngo and O'Cass, 2012).

To achieve innovation outcomes, firms need to combine its innovative culture with managerial activities in order to enhance the firm's abilities related to customer targeting, understanding customer needs, and marketing of new products (Parry et al., 2012). In this regard, Theodosiou, Kehagias, and Katsikea (2012) have found a positive relationship between innovation orientation and the ability to perform specialized marketing activities (market research, targeting, product, price, distribution, and promotion). According to Weerawardena (2003), firms that rely on an innovation-based competitive strategy have distinct marketing capabilities that support this strategy. Therefore, we assume that innovativeness may have a positive influence on the development of marketing capabilities, which in turn impact the innovation outcomes. Thus, we hypothesize:

H1: Marketing capabilities mediates the relationship between innovativeness and innovation results

2.2 Marketing capabilities and SME's performance

Marketing capabilities are considered a source of competitive advantage since its emphasis on organizational routine prevent competitors from copying the firm's ideas (Hrebiniak, 2006). The deployment of appropriate marketing capabilities is what provides the capacity to transform market knowledge into market success and superior financial performance (Murray et al., 2011; Ngo and O'Cass, 2012). Firms that develop its marketing capabilities have advantages concerning development, pricing, distribution, and promotion of new products, and for this reason, most firms expect a positive impact of marketing capabilities on performance (Theodosiou, Kehagias & Katsikea, 2012; Vorhies & Morgan, 2005).

However, the recent literature on the subject has pointed some inconsistencies on the relationship between marketing capabilities and the firm's performance. Song, Di Benedetto & Nason (2007) have found mixed results concerning the influence of marketing capabilities on total revenue and firm's profit. Yu, Ramanathan, and Nath (2014) have found that marketing capabilities do not have a direct influence on financial performance (return on assets and capital). According to Santa María, Abando, and De La Mara (2010) marketing capabilities do not have a direct relationship with sales growth, profitability, and revenue,

depending on product quality and innovation to improve competitiveness. Moore and Fairhurst (2003) have shown that promotional, customer service and external knowledge capabilities have no direct influence on a comprehensive set of performance indicators. Therefore, some intermediate mechanisms can be considered between this relationship.

Considering that marketing capabilities support the development of new products and services, especially when firms exhibit some degree of innovation (Najafi-Tavani, Sharifi, and Najafi-Tavani, 2016; Weerawardena, 2003), it is reasonable to suppose that innovation outcomes are the mechanisms that explain the relationship between marketing capabilities and firm performance. The research findings of Ngo and O'Cass (2012) attested that marketing capabilities interact with innovativeness to generate higher levels of innovation performance, i.e., a higher number of new products, improved quality, new customers acquisition, and product exclusivity. Based on these arguments, we propose:

H2: Innovation outcomes mediate the relationship between marketing capabilities and SME performance.

2.3 Innovativeness and SME performance

The literature on SMEs has a great interest in understanding how innovativeness impacts a firm's performance. In the current study, we argue that the relationship between innovativeness and performance might not be direct (Griseaman, Plank, & Brunner-Sperdin, 2013; Kmiecik et al., 2012) and consider the mediating role of the marketing capability - > innovation outcomes path in this relationship. Thus, in order to achieve higher performance, innovative SMEs must emphasize marketing capabilities to reach innovation outcomes. Previous studies reveal that innovation outcomes have a positive impact on firm performance (Jiménez-Jiménez & Sanz-Valle, 2011; Verhees & Meulenber, 2004). Furthermore, marketing capabilities are important to develop, price, distribute and promote new products (Vorhies & Morgan, 2005; Theodosiou, Kehagias & Katsikea, 2012). Following this reasoning, we hypothesize:

H3: The path 'marketing capabilities → innovation outcomes' mediates the relationship between innovativeness and SME performance.

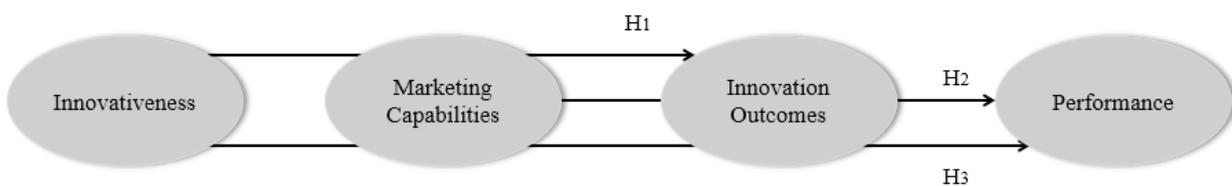


Figure 1. Theoretical model

3. Method

Data were collected through an online cross-sectional survey via Qualtrics platform. The respondents were selected using a non-probabilistic sampling method. A total of 1103 questionnaires were sent by e-mail which resulted in 160 completed surveys, representing a 14.5% response rate. The final sample consists of 105 marketing managers of the ITC sector. Before submitting to the respondents, the questionnaire was validated by marketing researchers and professionals of the ITC sector.

The study used existing scales to assess all variables that were measured using 10-point scales ranging from “completely disagree” to “completely agree.” The innovativeness construct was measured using five ten-point items developed by Hurley and Hult (1998). The marketing capabilities were measured using thirteen ten-point indicators from Menon et al. (1999)’s study on the marketing strategy process. The innovation outcomes construct was developed using indicators from two different studies: Langerak, Hultink & Robben (2004) and Ngo e O’Cass (2012). Firm performance was measured using six ten-point items from Grisseman, Plank e Brunner-Sperdin (2013).

Data were checked for normality using the Kolmogorov-Smirnov and Shapiro-Wilk tests. The results revealed that the data were non-normally distributed. Taking this result into account and considering the relatively small sample size, Partial Last Squares (PLS) path modeling was chosen for the data analysis using SMART PLS 3 software. The PLS approach to structural equation modeling is often utilized and is appropriate for explorative models with relatively small samples (Hair et al., 2014). Moreover, PLS was chosen because of its robustness for deviations from a multivariate normal distribution (Chin et al., 2003).

| Constructs | AVE | CR | (1) | (2) | (3) | (4) |
|----------------------------|-----|-----|------------|------------|------------|------------|
| Innovation Outcomes (1) | .68 | .91 | .68 | | | |
| Innovativeness (2) | .53 | .84 | .06 | .53 | | |
| Marketing Capabilities (3) | .63 | .93 | .36 | .21 | .63 | |
| Performance (4) | .73 | .94 | .52 | .06 | .26 | .73 |

Table 1. Convergent and discriminant validities

The internal consistency and convergent and discriminant validity of the measurement model were assessed. Table 1 shows the results for average variance extracted (AVE) and composite reliability (CR) of the constructs.

The results shown in Table 1 are above the recommended threshold values of .70 for CR and .50 for AVE (Bagozzi and Yi, 2012). Additionally, discriminant validity was

examined using the square root of the AVE and cross-loadings as recommended by Fornell and Larcker (1981). As shown in Table 2, the AVE square root values were higher than the correlation with other latent variables, which suggest discriminant validity in the model (Fornell and Larcker, 1981). The results of hypotheses tests are presented and discussed in the next section.

4. Results and Discussion

Table 2 presents the path coefficients (β) between variables followed by the significance test (t-value). Paths with t-value greater than 1.96 are statistically significant (Hair et al., 2017).

| Paths | β | t-value | Results |
|---|---------|---------|----------|
| Direct effects | | | |
| Innovativeness \rightarrow Performance | .052 | .60 | |
| Innovativeness \rightarrow Innovation Outcomes | -.048 | .53 | |
| Innovativeness \rightarrow Marketing Capabilities | .462 | 6.18 | |
| Marketing Capabilities \rightarrow Performance | .086 | .77 | |
| Marketing Capabilities \rightarrow Innovation Outcomes | .625 | 8.15 | |
| Innovation Outcomes \rightarrow Performance | .657 | 7.99 | |
| Indirect effects | | | |
| Innovativeness \rightarrow MKT Capabilities \rightarrow Innovation Outcomes (H ₁) | .289 | 4.57 | Accepted |
| Innovativeness \rightarrow MKT Capabilities \rightarrow Performance | .040 | .73 | ----- |
| MKT Capabilities \rightarrow Innovation Outcomes \rightarrow Performance (H ₂) | .393 | 5.56 | Accepted |
| Innovativeness \rightarrow MKT Capabilities \rightarrow Innovation Outcomes \rightarrow Performance (H ₃) | .190 | 3.75 | Accepted |

Table 2. Direct and indirect effects

As can be seen in Table 2, marketing capabilities mediates the relationship between innovativeness and innovation performance ($\beta = .289$; t-value = 4.57). This result confirms H₁ and reinforces the assumptions that marketing capabilities enable the development of critical activities (i.e., market research, new product development) oriented to the creation of competitive advantages (Varadarajan & Jayachandran, 1999). In this regard, marketing capabilities guide firms in its efforts to develop new products that have a greater potential to be acquired by customers. These efforts can lead the company to reach better innovation outcomes (Ngo & O’Cass, 2012). This finding is relevant for the group of firms studied (ICT sector) since it highlights the importance of marketing capabilities in the development of innovations. Small and medium-size technology firms usually have an innovation-focused culture. However, its managers lack operational skills related to the development of organizational capabilities (Netto, 2007). As our results pointed out, without the emphasis on marketing capabilities, it is difficult for firms to achieve its innovation goals. In this regard, the dearth of marketing capabilities could lead to loss of market for other firms with more prestige or lower cost (Netto, 2007).

Table 2 shows that innovation outcomes mediate the relationship between marketing capabilities and performance ($\beta = .393$; t -value = 5.56) which lead us to accept H₂. This result reinforces the need for complementarity between marketing and innovation activities (Menguc & Auh, 2006) and highlights the importance of both activities to organizational performance (Drucker, 2002). It also helps to explain how marketing capabilities could indirectly lead to performance. Table 2 also shows that there is no direct relationship ($\beta = .086$; t -value = .77) between marketing capabilities and performance (Moore & Fairhurst, 2003; Santa María, Abando & De La Mara, 2010; Yu, Ramanathan & Nath, 2014). However, the relationship becomes significant when we consider innovation outcomes as a result of marketing capabilities. Therefore, our study supports the assumption that marketing capabilities determine the development of new products, the quality of offerings to consumers and the exclusivity of products in the market (Ngo & O’Cass, 2012).

Following the results shown in Table 2, the relationship between innovativeness and SME performance is mediated by the ‘*marketing capability* → *innovation outcomes*’ path. This leads us to accept H₃. When the relationship between innovativeness and performance is mediated solely by marketing capabilities, there is an insignificant (t -value = .73) indirect effect ($\beta = .040$). This result supports our argument in favor of a double mediation mechanism. Considering that marketing capabilities cannot directly influence performance, companies need to consider the complete nomological network from innovativeness to achieve better performance.

Direct effects showed that innovativeness does not have a direct impact on performance ($\beta = .052$; t -value = .60). This result is aligned with recent studies (Augusto & Coelho, 2009; Grisseemann et al., 2013) and sheds light on an important issue: managers and business owners cannot rely just on innovative culture to achieve performance. Our results also show that there is no direct relationship between innovativeness and innovation outcomes ($\beta = -.048$; t -value = .53). SMEs cannot expect innovation results based solely on their innovative culture as we argue in the current study. Therefore, we can prove the importance of marketing capabilities and innovative outcomes to achieve better performance in an innovativeness environment.

5. Conclusions, Limitations and Further Research Directions

The motivation of this study was to understand better how innovativeness and performance are related. For this purpose, we empirically investigated the mediating role of marketing capabilities and innovation outcomes in the relationship between innovativeness

and performance in the SME setting. The results revealed that marketing capabilities and innovation outcomes are two important elements that can raise the performance if they are stimulated by new ideas (innovativeness). SMEs that have the culture of new ideas improve marketing practices (marketing capabilities) and can generate new products, processes, and technologies (innovation outcomes).

This study has three main contributions. First, we add to the literature on innovativeness by showing empirical evidence that it is erroneous to assume that innovativeness is directly linked to performance (Augusto & Coelho, 2009; Grisseman et al., 2013). Due to characteristics such as organic structure, reduced bureaucracy, and informal planning (McCartan-Quinn and Carson, 2003), innovativeness is easily nurtured in SMEs. However, it is misleading to think that these companies would have better performance based solely on their innovative culture. By rejecting the direct relationship, we show that there is room for a broader discussion on the consequences of innovativeness to organizational processes (Aksoy, 2017).

Second, our results contribute to the innovation management literature by measuring the impact of different aspects of innovation on organizational results (Manoochehri, 2010). We have measured innovation from the cultural perspective (innovativeness) and the technical perspective (innovation outcomes). We have shown that innovativeness does not directly impact innovation outcomes, always depending on the mediation of marketing capabilities. We argue that this is a valuable insight regarding how innovative firms develop and market new products. SME success is dependent on innovation generation, and the effective marketing of innovative products within the market (Aksoy, 2017; McCartan-Quinn & Carson, 2003). Thus, our results shed light on the central role of marketing to innovation management, since it represents the tool firms must manage to integrate consumer needs into the innovation process.

We also contribute to the marketing literature by explaining the role of marketing capabilities as mediators. Our double mediation mechanism is relevant from the academic perspective since it adds to the innovation management and marketing literature. We did not deny the importance of innovativeness. We understand that marketing capabilities are highly dependent on innovativeness (Menon et al., 1999; Weerawardena & O'Cass, 2004). In this regard, we assume that SMEs can develop marketing capabilities that influence innovation outcomes just because they are open to new ideas, better understand the consumer needs and apply new knowledge faster in marketing activities.

Although all the study's hypothesis were accepted, we need to highlight some limitations that constrain the generalizability of our results. First, our study relies on a small sample of 105 firms, which had put some restriction on data analyses. Future studies should consider larger samples to analyze this kind of theoretical model with more robust techniques. Second, our sample contains SMEs from the ICT sector. Thus our findings should be interpreted considering the applicability to this kind of companies. Future studies should be developed to understand how companies with innovative culture can achieve performance in different industries. Perhaps marketing capabilities have different levels of importance considering the industry under analysis. Regarding this topic, our study has put great focus on marketing capabilities. Future studies should investigate how innovativeness impact other organizational activities that could strengthen firms' innovative outcomes.

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