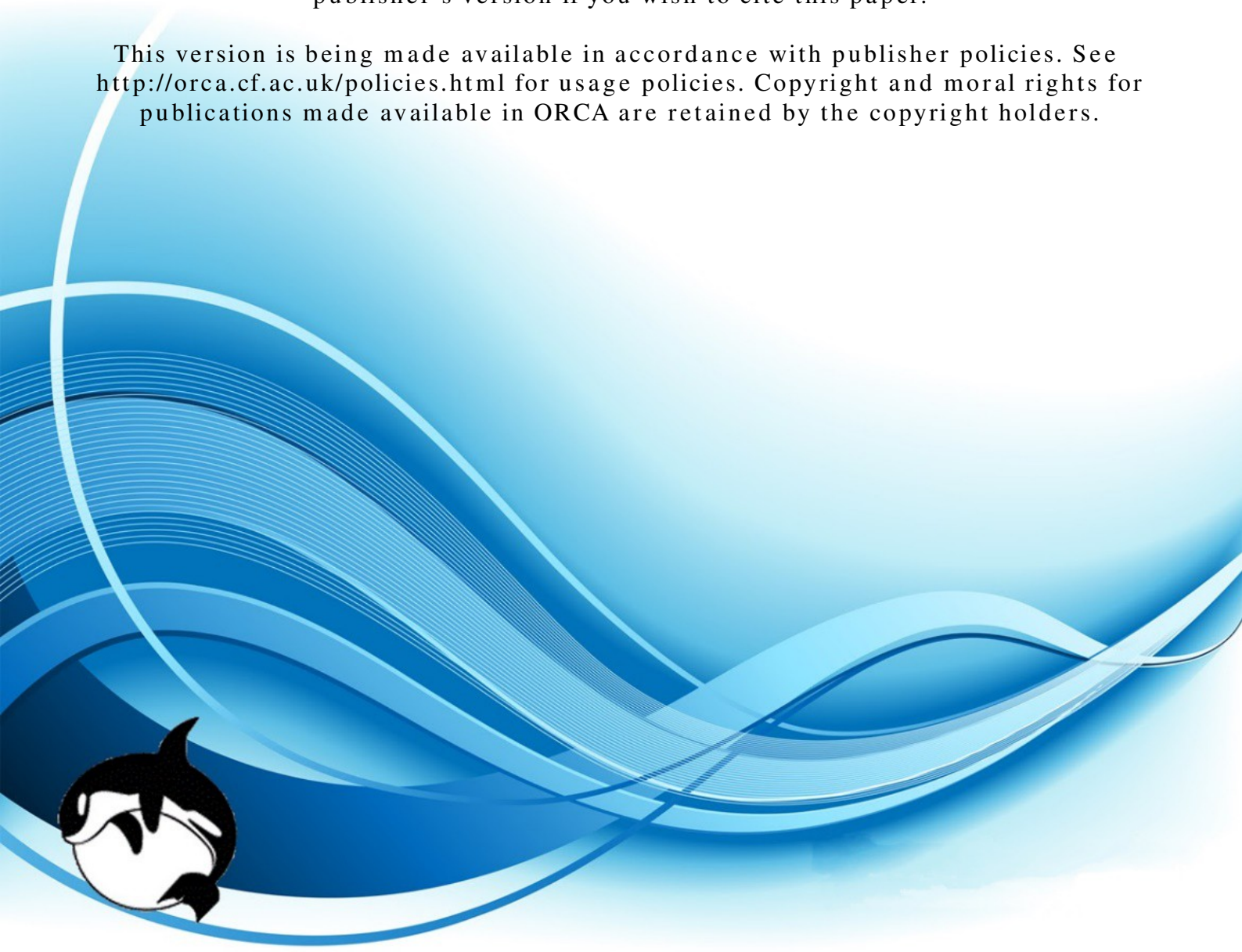

MARKET ENTRY TIMING: THE IMPACT OF COMPLEMENTARY CAPABILITIES ON STRATEGIC OUTCOMES

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Abstract

Using data on firm entries into the U.S. market for four product categories, we examine: (1) the complementary impact of marketing and R&D capabilities on firms' market entry strategies, (i.e., entry timing, product innovativeness, and product line breadth); (2) the extent that entry timing mediates the relationship between marketing-R&D capability complementarity, product line breadth and product innovativeness; and, (3) the effects of the three market entry strategies on firms' survival in the product categories. We provide three important contributions. First, we clarify the role of entry timing in influencing other market entry imperatives. Second, by providing evidence that both entry timing and product line breadth determine survival duration, we propose that the 'optimal' entry time varies along an entry-timing continuum. Third, we provide a more holistic examination of market entry considerations, which reveals the indirect relationship between marketing and R&D capability complementarity and survival through mediated paths.

Keywords: entry timing, product innovativeness, product line breadth, complementary capabilities, marketing capability, R&D capability

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1. Introduction

Market entry or "a planned movement into a new or adjacent market for the creation and/or delivery of offerings" (Markman et al., 2019, p.1) provides a growth opportunity for firms. Nonetheless, market entry strategies are often fraught with challenges. For example, 80-85% of fast-moving-consumer-goods (FMCG) market entries fail (Nielsen, 2018), generating negative consequences for firms. Such low success rates are explicable often because the timing ('when') and strategic ('how') considerations related to market entry decisions are complex (Zachary, Gianiodis, Payne, & Markman, 2015; Markman et al., 2019). The 'when' considerations involve timing and sequence of entry and have been studied extensively (c.f., Fosfuri, Lanzolla, & Suarez, 2013; Zachary et al., 2015). Yet, the 'how' considerations (i.e., strategies, resources and capabilities), have not been equally scrutinized, in at least three important ways.

The first gap in the market entry literature is the lack of empirical examination on the 'how' imperative involving the role of competitive strategies employed by firms to facilitate market entry (Markides & Sosa, 2013; Gómez, Pérez-Aradros, & Salazar, 2019). The dearth of research examining entry strategies beyond entry timing is surprising as market conditions and market opportunities vary along the entry-timing continuum (Suarez, Grodal, & Gotsopoulos, 2015). This, in turn, influences the market entry strategy a firm employs (Gómez et al., 2019). Thus, understanding the differences in the entry strategies across the continuum of entry timing could explain performance differentials found between early and later entrants.

Second, our understanding of the role of capabilities as antecedents of market entry is likewise incomplete. Although extant research on entry timing suggests that resources and

capabilities are key antecedents to entry timing (e.g., Robinson, Fornell, & Sullivan, 1992; Hawk, Pacheco-De-Almeida, & Yeung, 2013; Shamsie, Phelps, & Kuperman, 2004), most entry research overlooks the investigation of capabilities as drivers of both product-level entry considerations and entry timing decisions (Zachary et al., 2015). Specifically, while the degree of product innovativeness (e.g., the number of new product features) and product line breadth are important market entry considerations (Hauser, Tellis, & Griffin, 2006; Eggers & Moeen, 2020), scholars have yet to fully integrate them with entry timing, and examine capabilities as their antecedents (Fosfuri et al., 2013). Product innovativeness and line breadth represent theoretically relevant mechanisms that link capabilities and market entry performance.

Third, there is a lack of understanding of the interplay between market entry strategies ('how') with entry timing ('when') (Zachary et al., 2015). For example, does entry-timing strategy hamper or facilitate other market entry considerations such as product innovation and product line breadth? Our lack of knowledge regarding this interplay inhibits theory development that predicts effective entry strategies. Furthermore, a holistic framework connecting capabilities, entry strategies, entry timing, and performance would result in compelling implications for managers to reduce the risk of market entry failure and improve market entry performance.

To address these gaps, we seek to understand the role of two complementary capabilities (i.e., marketing and R&D)[1] as antecedents of both entry timing and two important market entry strategies: product line breadth and product innovativeness (Hauser, et al., 2006; Eggers & Moeen, 2020). Marketing capability refers to the "… firm's ability to understand and forecast customer needs better than its competitors and to effectively link its offerings to customers"

[1] We limit our study to the complementarity of marketing and R&D capabilities as they have been identified as the core functions in creating customer value specifically for new product development and introduction (e.g., Kim, Shin, & Min, 2016).

(Krasnikov & Jayachandran, 2008, p. 1). We define R&D capability as "… a firm's competency in developing and applying different technologies to produce effective new products and services" (Krasnikov & Jayachandran, 2008, p. 1). Product innovativeness reflects the extent to which the entrant product is new relative to other existing products in the market (Danneels & Kleinschmidt, 2001). Product line breadth is the variety of products offered by the entrant in the product category at entry time (Bayus & Putsis, 1999).

We test our hypotheses using data from firm entries into four product categories in high-technology consumer durable industries in the U.S. We examine three important empirical questions. *First, what is the complementary impact of marketing and R&D capabilities on firms' market entry timing, product innovativeness, and product line breadth? Second, to what extent does entry timing mediate the relationship between marketing and R&D capability complementarity and product line breadth/product innovativeness? Third, how do entry timing, product innovativeness, and product line breadth affect firms' survival in their product category?* By addressing these questions, our study makes three primary contributions. First, we clarify the role of entry timing ('when') in influencing the 'how' considerations of market entry. Specifically, we show that entry timing (1) facilitates the positive effect of capabilities on product innovativeness, and (2) suppresses the positive effect of capabilities on product line breadth. Second, by providing evidence that both entry timing and product line breadth are related to survival duration, we suggest that 'optimal' entry times vary along the entry-timing continuum and are not constrained to a specific window (e.g., Suarez et al., 2015). Third, by examining their relationship via the routes of entry timing, product line breadth and product innovativeness, we show that market entry strategies are the mechanisms that enable the deployment of combined marketing and R&D capability that leads to survival. Our findings

provide a systematic framework that informs managers of the required capabilities through to the intertwined strategies of market entry and their relationships with survival duration. We adopt survival duration as the performance outcome of market entry because: (1) it is clearly linked to the specific product category; (2) it traces the length of survival over time relative to other entrants (Yao, Zhang, Lu, & Huang, 2020); and, (3) exit indicates that remaining in the product category is not a valuable option for the firm (Cottrell & Nault, 2004).

2. Theoretical framework

2.1. Capabilities and market entry

Capability refers to a "firm's capacity to deploy resources, usually in combination, using organizational processes, to effect a desired end" (Amit & Schoemaker, 1993, p. 35). As capabilities are rooted in firm processes and are developed over time, they are difficult to replicate and imitate (Krasnikov & Jayachandran, 2008). Capabilities enable firms to perform value-creating tasks effectively (e.g., entering and successfully competing in new product markets), which create sustainable competitive advantage and drive performance (Afuah, 2002). Proponents of capability theory postulate that heterogeneity in capabilities explains firm performance variations (Peteraf, 1993). The notion that capabilities lead to performance has found widespread support (e.g., Karna, Richter & Riesenkampff, 2016). Notably, a recent review of entry timing literature highlights that capabilities play a significant role in explaining the antecedents and the contingencies of market entry[2] (Zachary et al., 2015).

We identify two general capability themes in the market entry literature. First, capabilities have been recognized as antecedents of entry timing. For example, Moeen (2017) shows that a

[2] Although firms may acquire competencies from external sources (e.g., via licensing-in or alliances), we limit the investigation of our study to capabilities that are internal to the firm (Eggers & Moeen, 2020). First, firm capabilities lead to higher levels of absorptive capacity, which is the prerequisite of effective assessment and integration of relevant external knowledge (Cohen & Levinthal, 1990). Second, off-the-shelf technologies and the outsourcing of capabilities do not provide sustainable competitive advantages (Teece, 2017).

firm's integrative capabilities at the time of first investment and technical capabilities at the time of entry explain the likelihood of entry in the context of agricultural biotechnology. In addition, firms' initial and current capabilities and their influence on the development of subsequent capabilities determine entry timing (Lee, 2008). Besides, possession of project speed capabilities enables firms to delay entry without negative consequences (Hawk, et al., 2013). Finally, prior studies have identified firm-level marketing skills and resources, technological resources, and R&D capabilities as key antecedents of entry timing (Robinson, et al., 1992; Schoenecker & Cooper, 1998).

The second general theme is the application of capabilities in the market entry literature as moderators of the entry timing–to–outcomes relationship. Specifically, R&D capabilities enable firms to exploit first-mover advantages (Franco, Sarkar, Agarwal, & Echambadi, 2009) while innovation capabilities strengthens late movers' performance (Shankar, Carpenter & Krishnamurthi, 1998).

Scholars underscore the importance of adapting the deployment of capabilities to the demands of the environment. For example, Suarez and Lanzolla (2007) propose that to capture the performance benefits of entry timing, firms need to align relevant capabilities with the environmental context, such as technology and market evolution. Furthermore, a meta-analysis investigating the effect of capabilities on performance found that environmental dynamism has a reinforcing effect on capabilities (Karna, Richter, & Riesenkampff, 2016). Similarly, the resource management literature explicates how firms structure and bundle resources to form capabilities, and leverage those capabilities to implement strategies that fit with environmental factors (Sirmon, Hitt, & Ireland, 2007).

In the context of market entry, these environmental factors include technological uncertainties, customer preferences and the challenges faced by external partners. Technological uncertainties at the emergence of the product category encourage a large number of entries with various product innovations, which race to emerge as the industry standard (Klepper, 1997). During this period, a firm's entry strategies are limited by innovation challenges faced by its external partners such as suppliers and complementors that form its ecosystem (Adner, 2006). For example, early smartphone manufacturers were constrained by the nascent digital network technology and limited network coverage offered by providers, disallowing customers to utilize products to their full potential. In contrast, as the product category matures, the uncertainties around the technology and innovation challenges within the ecosystem dissolve, giving way to incremental and process innovation (Adner & Kapoor, 2010; Anderson & Tushman, 1990). Furthermore, customer preferences develop over time, which create opportunities for niche segment creation (e.g., Cusumano, Kahl & Suarez, 2015). As the environmental context varies along the entry-timing continuum, we argue that capabilities must be structured and bundled to leverage market entry strategies that create value for customers and exploit market opportunities at the time of entry.

Capability theory also proposes that capabilities' effectiveness in driving firm performance may increase when they are deployed in combination (Newbert, 2008). *Complementary capabilities* create entrepreneurial rents due to the synergy between them (Stieglitz & Heine, 2007). These synergies are heterogeneous among firms and this integrative effect between capabilities creates causal ambiguity, which makes imitation difficult (Feng, Morgan, & Rego, 2017). Hence, entrants can deploy two distinct, but complementary capabilities to execute relevant entry strategies in order to gain advantage in the market. Employing the

capability perspective, we argue that the heterogeneity of firms' market entry performance is the outcome of the complementary capabilities that firm possess, and how they leverage them to implement market entry strategies across the continuum of entry time.

We propose that marketing and R&D capabilities complement each other to serve as drivers of market entry strategies—specifically, the strategies of entry timing, product line breadth, and product innovativeness. Marketing capability allows firms to predict changes in customer preferences better than their competitors and provides a platform for sustainable relationships with customers and distribution channel partners (Day, 1994; Moorman & Slotegraaf, 1999). Hence, it enables firms to select and deliver value propositions to their target customers in the form of products or service offerings (Day, 1994). R&D capability allows a firm to develop and apply useful technological knowledge to create product and process innovations better than their competitors (Krasnikov & Jayachandran, 2008). Undertaking the 'how' considerations of entry, we posit that marketing and R&D serve as complementary assets that enable firms to execute market entry strategies across the timing continuum, with different degrees of product innovativeness and line breadth (Zachary et al., 2015; Markman et al., 2019).

By examining the impact of complementarity between marketing and R&D capabilities on entry timing, product line breadth, and product innovativeness as well as their effects on survival duration, we demonstrate how complementary capabilities can be equifinal in terms of successful entry. Equifinality implies that alternative solutions, which consist of different formulations, can be applied to achieve the same specific outcome (Short, Payne, & Ketchen, 2008). Equifinality occurs through the fit between firm strategies with their context/environment (Doty, Glick, & Huber, 1993). Hence, we propose that complementary capabilities can be

deployed across the continuum of market entry strategies via different paths (entry timing, product line breadth, and innovativeness) to achieve an intended outcome (survival).

2.2. The interdependencies of market entry considerations

Market entry considerations, such as product decisions, are intertwined with entry timing and together they form a holistic entry strategy (Zachary et al., 2015; Eggers & Moeen, 2020). Different levels of market, product, and technological uncertainties surrounding stages of the product life cycle complicate entry strategies and create strategic tradeoffs for firms entering the market across the entry-timing continuum. For example, entrants into nascent markets need to make product and technology decisions before customer preferences and product standards emerge. Concurrently, firms' product and technological choices affect their performance, indicating the importance of these entry decisions (Bayus & Agarwal, 2007; Sorenson, 2000).

Embryonic research points to the interdependencies between entry timing and other market entry strategies. For example, due to market uncertainties, early movers are typically unable to identify correctly the requisite product attributes. Hence, they are more likely to offer a greater number of product features (Klingebiel & Joseph, 2016). Further, while offering a broader product line in the product category allows firms to meet the customer preferences, early entrants are unable to identify customer needs and preferences at the emergence of product categories (Cusumano et al., 2015). Thus, firms need to resolve the tension between reducing the uncertainties surrounding the commercial success of product entry strategies and timing advantages. As a result, it is vital to examine the possible counter or complementary effects that an entry-timing decision may have on different product strategies and subsequently on performance. Next, we offer a set of hypotheses graphically represented in Figure 1.

INSERT FIGURE 1 HERE

3. Hypotheses

3.1. The direct effect of capabilities of entry timing, product line breadth, and product innovativeness

Marketing capability endows firms with superior market sensing and customer-linking competencies, which provide timely and accurate knowledge on existing and potential customers to R&D departments (Day, 1994). It also facilitates effective marketing mix programs such as product development, pricing, marketing communications, and channel management, which are crucial for product commercialization and entry speed (Vorhies & Morgan, 2005). Meanwhile, firms that possess R&D capability can potentially transform market and customer insights into innovative products valued by customers, in a timely manner. R&D capability enables firms to produce new technical knowledge and integrate it with existing technology to create superior offerings, which in turn accelerates new product development (Krasnikov & Jayachandran, 2008). Hence:

> H_1: R&D and marketing capabilities have a negative complementary effect on entry timing. That is, the greater the complementarity of marketing and technological capability, the faster the market entry.

Offering a variety of products in a product category enables firms to meet various consumer needs more thoroughly. To do so, first, firms need to identify and satisfy customers' latent and expressed needs. Marketing capability is associated with firms' ability to develop superior market sensing processes; such that better and more nuanced understanding of customers helps firms to identify opportunities better than their competitors (Day, 1994). Second, firms need to be able to match the increased efforts in product development, product management, marketing communications, pricing strategies, selling and distribution that result from greater product line breadth (e.g., Vorhies, Morgan, & Autry, 2009). Thus, marketing capability allows firms to (1)

identify various customer needs captured by a wider product line breadth, and (2) perform the increased marketing mix efforts required by offering a broader product line.

Offering a greater number of products also increases the complexity of production and distribution that can lead to diseconomies of scale (Bayus & Putsis, 1999). Therefore, R&D capability is crucial for the process improvements necessary to handle the inefficiency and escalation in the manufacturing costs due to the increase in product variety (Netessine & Taylor, 2007). The technologies underlying process improvements allow firms to manufacture a wider breadth of products at a lower cost (Kim, Shin, & Min, 2016). Hence, marketing and R&D capability are complementary as their combination reduces the marketing and process costs resulting from the inefficiency of increasing product variety. Correspondingly, we argue that:

> H_2: R&D and marketing capabilities have a positive complementary effect on product line breadth as a market entry strategy.

Possession of both marketing and technology related capabilities enables firms to create products with superior characteristics (Afuah, 2002), and to communicate their unique features through their marketing efforts. Marketing capability provides R&D departments with valuable feedback from customers that drives new product creations and improvements (Dutta, Narasimhan, & Rajiv, 1999). By extension, R&D capability complements marketing capability since firms require prior technical know-how to apply valuable market knowledge such as customer feedback or competitor analysis, to product development. Firms are more likely to improve their product quality when they possess high levels of both product technology and product marketing capabilities (Moorman & Slotegraaf, 1999). Equally, firms produce superior products when they can exploit their technological capabilities by defining new features consistent with consumer needs (Li & Calantone, 1998). Hence, we propose that the two capabilities are complementary for product innovativeness:

H_3: R&D and marketing capabilities have a positive complementary effect on product innovativeness.

3.2. The direct effects of entry timing, product line breadth, and product innovativeness on survival

By entering early, firms create a multitude of market entry barriers (Lieberman & Montgomery, 1998). Early entrants can steer the preferences of product attributes towards their product to help shape customer perceptions of the product category (Carpenter & Nakamoto, 1989; Niedrich & Swain, 2003). The firm can also shape the socio-cognitive constructs of the nascent product category, by positioning its product to become the category's cognitive referent (Suarez et al., 2015). Furthermore, customers learn more about pioneering brands relative to others, leading to positive customer attitudes, confidence, and preference judgments. Finally, early entrants can create high switching costs (Gómez & Maícas, 2011) through customer habit formation and reputational advantages (Carpenter & Nakamoto, 1989), buyers' searching cost and network externalities (Lieberman & Montgomery, 1998) leading to greater performance. Hence:

H_4: The earlier that firms enter the market, the longer their survival duration in the product category.

Offering a broader portfolio within a product category allows firms to meet diverse consumer preferences and increases the likelihood that each customer will find a product that fulfills her unique needs (Bayus & Putsis, 1999). Furthermore, firms are able to ensure that at least some of their offerings meet customers' needs (Sorenson, 2000). This also signals to customers the firm's core competency in the product category. Brands offering a wide range of products that are compatible with each other and involve similar competencies are perceived by customers as experts in the product category (Berger, Draganska, & Simonson, 2007). Finally, a greater product variety also discourages the introduction of new variants by competitors. Thus:

H_5: The broader a firm's product line offering at the time of entry, the longer its survival duration in the product category.

Greater product innovativeness provides customers with more benefits and offers a new value proposition not offered by alternative products. Thus, innovative products may be able to satisfy customers' practical and expression needs by delivering functional values as well as symbolic values. There is a widespread consensus that innovative firms perform fundamentally better than their counterparts (Giarratana & Fosfuri, 2007). Market entry studies examining performance of late entrants indicate that they surpass existing players when they offer superior products (Shamsie et al., 2004). Furthermore, adding new product features leads to positive differentiation and perceived advantages over competing products (Carpenter, Glazer, & Nakamoto, 1994).

H_6: The greater the firm's product innovativeness at the time of entry, the higher its probability of survival in the product category.

3.3. The indirect effects of capabilities on product line breadth and product innovativeness

We expect entry timing to mediate the positive relationship between marketing and R&D complementarity and firms' product line breadth. Information gathered from the environment reduces ambiguity; thus, aids firms' strategic actions (Scott & Davis, 2015). Market information emerges as the product category develops and matures (Klepper, 1997). Accordingly, over time, the availability of information removes the uncertainties surrounding who the customers are, how to reach them, their wants and needs, and the heterogeneity across their preferences. Consequently, the later the entry, the more information can be obtained regarding customer preferences; this, in turn, facilitates evaluation of alternative product offerings. Hence, we expect late entrants to enter the market with broader product lines, compared to earlier entrants in the category. Thus:

H_7: Entry timing mediates the effect of marketing and R&D capability on product line breadth.

We expect entry timing to mediate the positive relationship between marketing and R&D complementarity and product innovativeness. Early movers enter the market with products that embody greater relative product innovativeness than later entrants. As early entrants are unable to predict accurately customer preferences of product features, they are likely to hedge their bets by offering a more extensive range of novel product features (Klingebiel & Joseph, 2016). Furthermore, early movers enter with products that comprise various incompatible designs, technologies, and product combinations in order to establish the industry standards and create the dominant design (Bayus & Agarwal, 2007). After the dominant design and industry standard emerges, product innovation revolves around incremental innovation (Anderson & Tushman, 1990). Later entrants apply their accumulated market-based knowledge stock and adapt their product features to product design standards and customer segment niche needs without having to offer extensive novel product features (Bayus & Agarwal, 2007). Hence, the relative product innovativeness offered by new entrants declines with time. We posit that:

H_8: Entry timing mediates the effect of marketing and R&D on product innovativeness.

4. Methods

4.1. Sampling and data collection

To test our hypotheses, we examine data of firm entries into the U.S. market for portable media players, portable computers, digital cameras, and smartphones across a 26-year window (1981-2007). The census period end date was set to retrospectively ensure no further new market entries were apparent in these product categories. These product categories were suitable for the study as they were introduced relatively recently so that the requisite data are still available; still, the industries are mature enough that market entries across the timing spectrum could be tracked

(Schoenecker & Cooper, 1998). In addition, the similarity among our four product categories enhances the internal validity of our study (Srinivasan, Pauwels, Silva-Risso, & Hanssens, 2009).

To classify market entrants in our sample, the pioneer for each product category was identified using news archives, company histories, financial reports, and online databases (Wang, Chen, & Xie, 2010). The main online news archive database used was Nexis, which provided access to leading news sources such as Business Wire, PR Newswire, and The New York Times, among others, for product announcements containing relevant search terms. When the pioneering product in a new product category was found, the entrant was classified as the pioneer and the date was recorded. The subsequent entrants were then tracked forward for an average duration of ten years following the first entry in each category. Overall, the dataset includes 142 market entries across the four product categories.

4.2. Measurements

4.2.1. Dependent variables

The performance of each entrant was determined by its *survival duration*, operationalized as the elapsed time (months) from the date the firm entered to the date that it exited the product category (Yao et al., 2020). The exit of each entrant was verified through archival records derived from the Factiva database, company websites, press releases, and financial reports. We used the date of data collection (August 2020) as the cutoff date for firms that are still active in the product categories to date. For failed firms, the exit time is derived from (1) the announcement date of withdrawal from the market or (2) the announcement date of firms being purchased or dissolved. For firms that did not make official announcements of exits, we traced product announcements and reviews each year from various sources until we were satisfied that the firm is no longer active in the category. In this scenario, a 12-month cutoff date following the

most recent product introduction is set as the exit date. This is because firms active in these categories typically launch new models annually as they plan their next move based on market feedback from the last product launch (Sharma, Saboo, & Kumar, 2018).

Following the definition of *entry timing* as "... the order of entry into a new or existing space (e.g., market, industry, or geographic region), relative to competitors, technology development, product life cycle, or other contextual referents" (Zachary et al., 2015, p.2), we operationalized it as order of entry. The pioneer that first entered the market is designated as order 1, the second entry is designated as order 2, and subsequent entries are designated in the same manner (Lee, Smith, Grimm, & Schomburg, 2000).

Product innovativeness for each new entrant was measured by a count of new product features not offered by existing players in the product category listed under product reviews found in news archives. The relative measure was then derived by dividing the number of new product features by the number of existing product features that were listed for previous entrants (e.g., Green, Barclay, & Ryans, 1995).

Product line breadth was measured by the number of product models introduced in the product category by the entrant in the year of entry (t_0) (Bayus & Putsis, 1999). To ensure that the product qualifies as a different model rather than a minor modification of existing models (e.g., new color), we examine (1) the date of model introduction, (2) model identification, 3) product specifications, and (4) price. A model that varies greatly from an entrant's prior models on these four characteristics is considered a new model.

4.2.2. Independent variables

R&D capability. We use forward patent citation as a proxy for R&D capability. Studies found that forward patent citations represent technology quality, impact and importance (e.g., Kotha,

Zheng, & George 2011; Dutta et al., 1999). Thus, R&D capability is operationalized as the average number of citations, net of self-citations, received by patents filed by the firm to the USPTO in the year prior to market entry (t_{-1}) (citations received/count of patents) observed in 5 subsequent years ($t_0 - t_4$). Most patent citations tend to occur within a few years after the grant date, peaking at the third year. Hence, the use of a five-year window does not cause significant right-censoring bias (Kotha et al., 2011).

Marketing capability. Following Dutta et al. (1999), Stochastic Frontier Estimation (SFE) was used to estimate the efficient frontier that represents marketing capability (see Appendix). We used sales as the marketing objective while the resources (input) used for marketing capability estimation in this study are the general and administrative expenditures (SGA) and the level of its receivables. The measure of marketing capability used is the average of SFE estimation in the year prior to market entry (t_{-1}) and in the year of market entry (t_0).

4.2.3. Control variables

The effects of *product categories* on the variances in product survival and product innovativeness were controlled for by assigning dummy variables to the product categories. To control for possible differences between entrants that come from different *industry groupings*, dummy variables were used to distinguish SIC groups (retrieved from the NAICS).

Consistent with prior studies in market entry (Hawk et al., 2013; Shamsie et al., 2004), we control for *firm age*, measured by subtracting the year in which the firm was founded from the year that it made its entry into the product market. To account for the effect of firm value, we control for *Tobin's Q*, which was operationalized as the market value of assets divided by the book value of assets. These data were obtained from COMPUSTAT and Thomson One Banker in the year of market entry (t_0).

To control for the effects of firm resources and their inventive inclination we include the *number of new patents* applied by firms in the year of entry (t_0) derived from USPTO. Considering firms' tendency to seek new product-market opportunities and to create change in its market we controlled for *fixed asset intensity* in the estimation; measured as fixed assets divided by total assets derived from COMPUSTAT (Segev, 1989). *Market concentration* was controlled for using the measure derived from the share of industry sales produced by the four leading firms at entry year (Lee et al., 2000). These data were derived from the U.S. Census Bureau report. To control for the higher likelihood of success of diversifying entrants (*de alio)*, we included dummy variables to distinguish between them and firms that entered the industry as a start-up (*de novo*). Finally, we control for possible differences between *local entrants* (US) and *international entrants* using a dummy variable for US firms.

4.3. Models and testing hypotheses

To test for the direct effects hypothesized in H_1-H_6 (Models 1-4), we used Ordinary Least Squares (OLS) estimation. To test for the indirect effects hypothesized in H_7-H_8, we employed a bootstrapping approach in PROCESS (Preacher & Hayes, 2008). Estimation concerns such as normality and outlier influence were addressed by the logarithm and square root transformations. In addition, data for all the variables were standardized except for the dummies to reduce the effects of the units of measurement that varied across the constructs in the model (Vorhies, et al., 2009). Finally, variance inflation factors (VIFs) are all below 3, indicating that multicollinearity was not of concern (Aiken & West, 1991).

4.4. Analyses and results

4.4.1. Direct effects

Table 1 provides the descriptive statistics and correlations among the study variables. The estimations are presented in Table 2, which reports the standardized estimates, standard errors

and significance levels. We found support for H_1 (Model 1) as the interaction effect between marketing and R&D capabilities is negatively related to order of entry ($\beta = -0.27$, $p \leq 0.01$): the greater the interaction the earlier the firm enters the product category. We also found support for H_2 (Model 2) as the interaction effect of capabilities on product line breadth is positive and significant ($\beta = 0.23$, $p \leq 0.05$). Model 2 also indicates a positive relationship between order of entry[3] and product line breadth ($\beta = 0.49$, $p \leq 0.01$). H_3 was not supported (Model 3) as the effect of marketing and R&D capability interaction on product innovativeness is not significant ($\beta = -0.02$, $p > .1$). Model 3 also indicates a negative relationship between order of entry[4] and product innovativeness ($\beta = -0.29$, $p \leq 0.01$).

Order of entry has a negative effect on survival duration in the product category (Model 4; $\beta = -0.39$, $p \leq .01$), thus, H_4 is supported. The results indicate that product line breadth has a positive effect on firms' survival duration (Model 4; $\beta = 0.25$, $p \leq 0.01$), in support of H_5. Finally, we did not find support for H_6 that hypothesized a positive association between product innovativeness and firms' survival duration in the category (Model 4; $\beta = 0.07$, $p > .1$).

INSERT TABLE 1 AND TABLE 2 HERE

4.4.2. Indirect effects of marketing and R&D capability interaction on product line breadth and product innovativeness

We tested for indirect effects predicted in H_7 and H_8 and report these results in Table 3. To classify for the type of mediation, we checked for the presence of indirect and direct effects and determine if they have the same sign (Zhao, Lynch, & Chen, 2010; MacKinnon, Krull, & Lockwood, 2000). The indirect effect of marketing and R&D capability interaction on product

[3]As an additional analysis, we tested if entry timing has a reversed U-shaped relationship with the number of product line breadth at entry. The result shows that there is a statistically significant and positive relationship between the square term of order of entry and product line breadth ($\beta = 0.67$, $p < 0.01$).

[4]As an additional analysis, we examined if entry timing has a U-shaped relationship with product innovativeness. The result shows the square term of order of entry as an insignificant predictor of product innovativeness ($\beta = 0.26$, $p = 0.34$)

line breadth through order of entry is negative (-0.13) and significant (5,000 bootstrap samples, 95% bootstrap C.I. = -0.24; -0.02). In contrast, the direct effect of marketing and R&D capability interaction on product line breadth is positive and significant (β =0.23, $p \leq 0.05$). Since the direct and indirect effect are significant but with opposite sign, we classify the mediation relationship as inconsistent (MacKinnon et al., 2000). Hence, we found support for H_7. In addition, the total effect (0.1) is smaller than the direct effect (0.23) indicating a suppressor effect in the mediation path (MacKinnon et al., 2000). Specifically, although the combined marketing and R&D capability widens product line breadth, the mediational path via entry timing had the opposite effect. The complementary effect of marketing and R&D capability appears to expedite entry timing, which in turn leads to a decrease in product line breadth.

We follow the same steps for H_8, which predicts that entry timing mediates the effect of R&D on product innovativeness. The indirect effect of marketing and R&D capability interaction on product innovativeness through order of entry is positive (0.08) and significant (5,000 bootstrap samples, 95% C.I. = 0.01; 0.16). Since the direct effect of marketing and R&D capability interaction on product innovativeness is not significant (β = -0.02, $p > .1$), we classify the mediation relationship as indirect-only mediation (Zhao, et al., 2010). Thus, H_8 is supported. As a logical extension to hypotheses H_1 to H_8, we performed additional mediation tests to observe the different paths from marketing and R&D capability interaction to survival (Table 3).

INSERT TABLE 3 HERE

4.4.3. Additional mediation analyses and results

4.4.3.1. Order of entry to survival paths

The indirect effect of order of entry on survival duration through product line breadth is positive (0.10) and significant (5,000 bootstrap samples, 95% bootstrap C.I. = 0.02; 0.21). In contrast,

order of entry has a negative direct effect on survival duration in the product category (β = -0.39, $p \leq 0.01$) (Table 2). We classify the relationship as an inconsistent mediation since the direct and indirect effect are significant but with opposite sign. In addition, the total effect is -0.29, which is closer to 0 than the direct effect (-0.39). As such, we conclude that there is a presence of a suppressor effect in the path. Specifically, although order of entry has a negative effect on survival duration (the later the entry the shorter the survival), the mediational path via product line breadth has the opposite effect. Order of entry has a positive effect on product line breadth (the later the entry, the broader the product line), which in turn leads to longer survival duration.

The indirect effect of order of entry on survival duration through product innovativeness is insignificant (5,000 bootstrap samples, 95% bootstrap C.I. = -0.09; 0.04). Thus, we conclude that product innovativeness does not mediate the order entry-survival relationship.

4.4.3.2. Marketing and R&D capabilities interaction to survival paths

The indirect effect of marketing and R&D capability interaction on survival duration through order of entry is positive (0.11) and significant (5,000 bootstrap samples, 95% bootstrap C.I. = 0.03; 0.22). As the direct effect of marketing and R&D capability interaction on survival duration is not significant (β = -0.10 p >.1), we classify this relationship as indirect-only.

The indirect effect of marketing and R&D capability interaction on survival duration through order of entry and product line breadth is negative (-0.03) and significant (5,000 bootstrap samples, 95% bootstrap C.I. = -0.08; -0.01). As the direct effect is insignificant, we classify the relationship as indirect-only mediation.

The indirect effect of marketing and R&D capability interaction on survival duration through order of entry and product innovativeness is positive (0.01) and insignificant (5,000 bootstrap samples, 95% bootstrap C.I. = -0.01; 0.03). Next, we present a robustness check.

4.5. Robustness check

In our model estimation, we measure entry timing as order of entry due to its relative nature (Yao et al., 2020). Order of entry reflects the cumulative density of the market and the number of competitors that already exist when a firm enters (Schoenecker & Cooper, 1998; Lavie, Lechner, & Singh, 2007).

To check the robustness of our findings, we adopted an alternative measure of entry timing: the number of months elapsed between the date of the introduction of the pioneering product and the entry date of each subsequent entry (Schoenecker & Cooper, 1998). We labeled this measure *entry lag months*. Measuring entry timing in months captures how much time has passed since the first entry (Lavie et al., 2007) and reflects strategic decisions about the period the firms decide to enter the market (Schoenecker & Cooper, 1998). We then retested H_1-H_8.

The results in Model 1, Table 4 indicate support for H_1 whereby a complementary effect between marketing and R&D capabilities was found on entry lag months: the greater the interaction the earlier the firm enters the product category ($\beta = -0.17$, $p = .05$). As presented in Model 2 in Table 4, we found marginal support for H_2 as the interaction effect of capabilities on product line breadth is positive and marginally significant ($\beta = 0.15$, $p \leq .10$). In line with our main analysis, we did not find support for H_3 as the interaction of marketing and R&D capability has no significant effect on product innovativeness ($\beta = 0.02$, $p > .1$).

The results of Model 4 estimation in Table 4 show that entry lag months has a negative effect on firm's survival duration in the product category ($\beta = -0.24$, $p \leq 0.05$). Consequently, H_4 predicting earlier entry relates to longer survival is supported. Product line breadth has a positive effect on firms' survival duration ($\beta = 0.19$, $p \leq 0.05$) supporting H_5. Finally, we did not find

support for H_6 that hypothesized a positive association between product innovativeness and firms' survival duration (β =0.10, p = 0.31).

We also tested for indirect effects predicted in H_7 and H_8 and found no support. The effect of marketing and R&D capability interaction on product line breadth and product innovativeness are not mediated by entry lag months. Next, we discuss the theoretical and managerial implications of our research as well as limitations and future research directions.

5. Discussion

We start our discussion by reflecting on the potential explanations to the unsupported hypotheses. First, the lack of a relationship between marketing and R&D capability complementarity with product innovativeness is contrary to our expectation. It is plausible that in the high technology consumer durables context, firms may acquire external technological know-how to add innovative product features, which offers an explanation to this non-significant finding.

Interestingly, we also found no relationship between product innovativeness and firms' survival. This may be explained by the notion that formative markets are often not ready for "bleeding edge" products (i.e., products that offer the most advanced features or technologies). Thus, "strong seconds" are better positioned to capture consumer needs and therefore, survive in the market. Another possible explanation could be that innovativeness may also be manifested in business model innovation, which can facilitate market entry (Markides & Sosa, 2013). Based on these reflections, we provide a discussion on the possibility of exploring firms' ability to access external resources and business model innovation as a future research avenue of market entry in the final section of the paper.

5.1. Theoretical implications

First, our results clarify the influence of entry timing on the 'how' aspects of market entry by examining the manner in which capabilities are used to deploy other market entry strategies (product line breadth and product innovativeness). When only direct effects are examined (H_1 and H_2), marketing and R&D capabilities complementarity leads to both early entry and a wider product line breadth. However, the relationship between capabilities complementarity and product line breadth appears to be complex when the interplay of entry timing is considered (H_7). We find that entry timing has a suppressor effect on the positive relationship between marketing and R&D capability interaction and product line breadth. This finding suggests a trade-off and incompatibility between entry timing and product line breadth as two viable market entry strategies when deploying combined marketing and R&D capabilities.

In contrast, we found no direct effect between marketing and R&D capabilities interaction with product innovativeness (H_3). However, a mediation test reveals that the relationship between marketing and R&D capabilities and product innovativeness is indirect via entry timing (H_8). Thus, the combination of marketing and R&D capabilities can be deployed to increase product innovativeness as an entry strategy by entering the market early. Taken together, these results clarify the role of timing in the 'how' considerations of market entry (Zachary et al., 2015; Markman et al., 2019). Specifically, our results demonstrate that the 'when' affects the 'how' by: (1) facilitating the positive effect of capabilities on product innovativeness, and (2) counteracting the positive effect of capabilities on product line breadth. The mediation analyses results thus, enrich our understanding of the nuanced role of entry timing in influencing market entry considerations, which has been thus far underexplored.

Second, by providing evidence that both entry timing and product line breadth determine survival duration, we suggest that the 'optimal' entry times vary depending on the entry strategy

that best meets the market conditions and opportunities along the entry-timing continuum (Gómez et al., 2019). In the context of high-technology consumer durables, at the emergence of a product category, when there are high uncertainties about customer needs and preferences, firms may leverage their marketing and R&D capability to expedite entry and gain timing advantage. In contrast, firms that enter after the uncertainties surrounding technological and market uncertainties have resolved are better able to assess which of the product's features and specification are relevant, and for which consumer segments. Thus, these firms are more likely to introduce a greater variety of products to meet the needs and preferences of different market segments. Firms in high technology markets seeking to offer a broader product line may benefit from the 'tortoise effect', as time provides later entrants with more precise market information to help them execute this strategy. Finally, our additional analysis shows that product line breadth plays an inconsistent mediation role in the order of entry – survival duration relation. That is, while early entry leads to longer survival duration, it also leads to narrower product line breadth, which, in turn, reduces the likelihood of survival. The opposing effect of entry timing and product line breadth on survival indicate their incompatibility as simultaneous strategies.

Third, our findings that there are different paths from marketing and R&D capability complementarity to survival reveal that their relationship is not direct, but can be attempted through three market entry strategies (entry timing, product line breadth and product innovativeness). Specifically, the journey of success from capabilities complementarity to firms' survival in the product categories can be taken via two routes: either through early entry or through a wider product line breadth. This finding enlightens the question of "What might be some of the most common paths to equifinality in terms of successful and failed entry?" (Markman et al., 2019, p. 14). We show that performance equifinality in market entry occurs

through the two strategies, which are generated from the same complementary capabilities but deployed in different manners to fit the environment and market opportunities at the point of entry. Furthermore, the mediation pathway of capabilities-survival through (1) entry timing, (2) product line breadth and, (3) product innovativeness allows us to extend the current theoretical rationale for the effect of capabilities on performance in the context of market entry. Consequently, our study provides additional steps of process in the capability–performance direct relationship. By integrating product line breadth, product innovativeness, and entry timing in the capabilities-performance paths, we ascertain the role of strategies as the missing mechanism that explains how capability leads to performance. Thus, our study points to the notion that it is not just the type and level of combined capabilities that matters to entry performance, but it is how they are utilized to form different market entry strategies. Finally, considering the direct and indirect effects together, our result shows the three market entry considerations collectively with complementary capabilities as their antecedent, form a holistic market entry process.

5.2. Managerial implications

Our research also has important implications for managers. First, *our results are relevant to managers facing the dilemma between entering the market early to generate first mover advantage or to defer entry to allow uncertainties to decrease*. Our findings show that both early entry and wider product line breadth lead to greater survival duration. Hence, if the choice to delay entry is available, later entrants can compete on wider product breadth and do not need to rush entry to achieve greater performance. Second, *we highlight the need for managers to consider the complementarity of marketing and R&D capabilities while developing market entry strategies as early entrants, followers, and late entrants*. Although each of the capabilities is

important in itself, managers must deploy them in combination either to expedite entry or to increase the breadth of their product line. Third, when planning a market entry, *managers need to pay attention to the interplay of entry timing on product innovativeness and breadth*. Specifically, while early entry leads to greater product innovativeness, it also lowers product line breadth, which could go against survival in the product category. Finally, as *product innovativeness does not lead to firm survival in the product category, our results point to the notion that customers do not necessarily value all new innovative features*. Hence, firms should not add costly innovative features unless they are certain that customers find them valuable.

5.3. Limitations and future research

As is the case with any empirical work, there are limitations to our study. First, our study focuses narrowly on product innovativeness. We encourage future empirical studies to test our findings in a market in which an interplay of a wider set of innovation dimensions, including business model innovation, platform innovation, product innovation, and breadth of services and entry timing can be observed.

Second, we examine only marketing and R&D capabilities as determinants of market entry strategies relevant for publicly listed companies in high-technology consumer durable industries in the U.S, market. Future studies may examine other types of capabilities relevant for entrepreneurial start-ups in the digital sectors. They may also include these firms' ability to access external resources such as alliance and networking capabilities and other types of complementary capabilities such as entrepreneurship and information and communications technology. Finally, as other sectors such as FMCG and other geographical regions outside the U.S. may have other factors beyond capabilities that enable market entries, (e.g., bargaining

power of retailers over manufacturers, political and economic factors, etc.), future scholars may include these industry specific nuances as controls variables.

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Appendix: Stochastic frontier estimation (SFE)

The general function of SFE can be specified as:

$$Output_{it} = \alpha_0 + \alpha_1 \text{ x } Input_{it} + \alpha_2 \text{ x } Input_{2it} + \ldots + \varepsilon_{it} - \eta_{it}$$

where ε_{it} represents the stochastic error in the output; and η_{it} is the inefficiency score that represents a firm's inefficiency in transforming resources into output. Hence, to estimate a firm's marketing capability, for firm *i* in year *t*, we estimate:

$$\ln(SALES_{it}) = \alpha_0 + \alpha_1 \ln(SGA_{it}) + \alpha_2 \ln(RECEIVABLES_{it}) + \alpha_3 \ln(ENV\_CONDS_i) + \varepsilon_{it} - \eta_{it} \quad \text{(M1)}$$

where:

$SALES_{it}$ = actual sales achieved by firm *i* in year *t*,
SGA_{it} = SGA expenditure of firm *i* in year *t*,
$RECEIVABLES_{it}$ = level of receivables of firm *i* in year *t*,
ENV_CONDS_i = market conditions (dummy variables based on the four-digit SIC code of firm *i*

To enable inefficiency estimation, the distribution of the error terms ε_{it} was assumed to be normally distributed with mean zero and variance σ_ε^2, i.e. $\varepsilon_i \sim N(0, \sigma_\varepsilon^2)$ and η_{it} was assumed to be distributed truncated normal (i.e. η_{it}>0) with mean μ >0 and variance σ_η^2, i.e., $\eta_i \sim N(\mu, \sigma_\eta^2)$ (Dutta et al., 1999). Furthermore, the two error terms of ε_i and η_i were assumed to be independent, i.e., E[$\varepsilon_{it}\, \eta_{it}$] = 0 (Narasimhan, Rajiv, & Dutta, 2006) and (ε_i and η_i) were independently distributed of the independent variables in the Equation M1, i.e., E[$X'_{it}\varepsilon_{it}$] = E[$X'_{it}\eta_{it}$] = 0 (Xiong & Bharadwaj, 2011). Finally, marketing capability is calculated using the inverse of the inefficiency score η derived from the estimation. The estimation of η_i was rescaled to be between 0 and 100. More specifically, marketing capability of firm *i* in period *t* was measured as 100 - η_i (the higher the inefficiency, the lower the marketing capability) (Xiong & Bharadwaj, 2011).

Table 1: Descriptive statistics and correlations

	Variable	Mean	SD	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1)	Survival Duration	108.29	116.11	1.00											
(2)	Marketing Capability	0.78	0.07	0.04	1.00										
(3)	R&D Capability	4.42	3.92	-0.03	0.13	1.00									
(4)	Order of Entry	45.05	38.73	-0.21	0.17	-0.12	1.00								
(5)	Entry Lag Months	62.09	36.68	-0.14	0.08	0.09	0.77	1.00							
(6)	Product Innovativeness	0.23	0.18	0.12	-0.05	0.23	-0.31	-0.12	1.00						
(7)	Product Line Breadth	1.56	0.95	0.12	0.14	0.19	0.30	0.34	0.01	1.00					
(8)	Age	47.44	36.78	0.10	0.04	0.02	-0.11	-0.02	0.05	0.02	1.00				
(9)	Tobin's Q	2.77	2.91	-0.01	0.16	0.12	-0.03	-0.03	0.11	0.06	-0.08	1.00			
(10)	Patent Size	515.16	820.37	0.00	0.04	0.21	-0.03	0.10	0.06	0.05	0.43	0.17	1.00		
(11)	Fixed Asset Intensity	0.2	0.11	0.05	0.12	0.03	0.03	0.02	-0.11	0.01	0.35	-0.21	0.28	1.00	
(12)	Market Concentration	44.17	8.73	-0.11	0.15	0.06	0.21	-0.04	0.05	-0.13	-0.19	0.08	0.01	-0.04	1.00

Notes: Correlations above [0.13] are significant at $p \leq 0.10$, above [0.15] are significant at $p \leq 0.05$, above [0.22] are significant at $p \leq 0.01$(2-tailed)

Table 2: Regression results

	Model 1		*Model 2*		*Model 3*		*Model 4*	
	Order of Entry		*Product Line Breadth*		*Product Innovativeness*		*Survival Duration*	
	Coeff.	*Std. Error*	*Coeff.*	*Std. Error*	*Coeff.*	*Std. Error*	*Coeff.*	*Std. Error*
R&D capability (RDC)	0.09	0.09	-0.08	0.10	0.12	0.10	-0.04	0.10
Marketing capability (MC)	0.13	0.08*	0.16	0.08*	0.02	0.09	0.11	0.09
RDCxMC	-0.27	0.07***	0.23	0.09**	-0.02	0.09	-0.10	0.08
Order of Entry			0.49	0.10***	-0.29	0.10***	-0.39	0.12***
Product Innovativeness							0.07	0.10
Product Line Breadth							0.25	0.09***
Controls								
Age	-0.11	0.10	0.08	0.11	0.03	0.11	-0.15	0.12
Tobin's Q	-0.08	0.08	0.14	0.09	0.06	0.09	0.01	0.11
Patent Size	0.26	0.11**	-0.12	0.14	-0.01	0.13	0.30	0.13**
Fixed Asset Intensity	-0.10	0.09	-0.06	0.10	-0.12	0.10	-0.08	0.11
Market Concentration	0.15	0.09*	-0.05	0.10	0.19	0.10*	0.11	0.08
Ind: Computer & Computer Related Equipment (dummy)	-0.85	0.38**	0.71	0.45	0.11	0.44	-0.15	0.40
Ind: Audio, Video & Telecommunication Equipment (dummy)	-0.82	0.38**	0.81	0.45*	-0.16	0.44	-0.06	0.41
Ind: Photographic Equipment (dummy)	-1.09	0.45**	0.91	0.54*	-0.54	0.53	-0.29	0.50
Ind: Wholesale & Stores (dummy)	0.06	0.43	0.56	0.50	0.01	0.50	0.30	0.53
Product Category: MP3 Player (dummy)	0.72	0.22***	-0.45	0.27*	-0.93	0.27***	-0.04	0.31
Product Category: Portable Computer (dummy)	1.53	0.26***	-0.29	0.34	-0.32	0.33	0.75	0.38*
Product Category: Digital Camera (dummy)	0.49	0.28*	0.56	0.32*	-0.36	0.32	0.73	0.29**
U.S. company (dummy)	0.06	0.17	0.16	0.20	0.26	0.19	0.18	0.21
de novo (dummy)	-0.27	0.17	0.14	0.20	0.06	0.20	-0.12	0.22
Constant	0.06	0.44	-0.74	0.50	0.34	0.50	-0.30	0.47
F-value	6.04***		2.58***		2.67***		3.83***	
R^2	0.45		0.27		0.28		0.25	

n= 142; *** p≤0.01; ** p≤0.05; * p≤0.1

Table 3: Indirect effects

Path	Effect	Standard Error	LLCI	ULCL	Significance
Marketing X R&D Capability --> Order of Entry --> Product Line Breadth	-0.13	0.06	-0.24	-0.02	Sig.
Marketing X R&D Capability --> Order of Entry --> Product Innovativeness	0.08	0.04	0.01	0.16	Sig.
Order of Entry --> Product Line Breadth --> Survival	0.10	0.05	0.02	0.21	Sig
Order of Entry --> Product Innovativeness --> Survival	-0.02	0.03	-0.09	0.04	Not sig.
Marketing X R&D Capability --> Order of Entry --> Survival	0.11	0.05	0.03	0.22	Sig.
Marketing X R&D Capability --> Order of Entry --> Product Line Breadth --> Survival	-0.03	0.02	-0.08	-0.01	Sig.
Marketing X R&D Capability --> Order of Entry --> Product Innovativeness --> Survival	0.01	0.01	-0.01	0.03	Not sig.

Table 4: Robustness check regression results - alternative measure of entry timing

	Model 1		*Model 2*		*Model 3*		*Model 4*	
	Entry Lag months		*Product Line Breadth*		*Product Innovativeness*		*Survival Duration*	
	Coeff.	*Std. Error*	*Coeff.*	*Std. Error*	*Coeff.*	*Std. Error*	*Coeff.*	*Std. Error*
R&D capability (RDC)	0.07	0.10	-0.05	0.11	0.11	0.10	-0.06	0.10
Marketing capability (MC)	0.16	0.09*	0.17	0.09*	0.01	0.09	0.11	0.09
RDCxMC	-0.17	0.09*	0.15	0.09*	0.02	0.09	-0.03	0.08
Entry Lag Months			0.30	0.09***	-0.20	0.09**	-0.24	0.10**
Product Innovativeness							0.10	0.10
Product Line Breadth							0.19	0.08**
Controls								
Age	-0.20	0.11*	0.09	0.12	0.02	0.11	-0.15	0.12
Tobin's Q	-0.09	0.09	0.13	0.09	0.06	0.09	0.02	0.11
Patent Size	0.29	0.14**	-0.08	0.14	-0.03	0.14	0.27	0.13**
Fixed Asset Intensity	-0.09	0.10	-0.08	0.10	-0.11	0.10	-0.07	0.11
Market Concentration	0..02	0.10	0.02	0.10	0.15	0.10	0.05	0.08
Ind: Computer & Computer Related Equipment (dummy)	-0.95	0.45**	0.58	0.46	0.16	0.45	-0.05	0.41
Ind: Audio, Video & Telecommunication Equipment (dummy)	-0.90	0.45**	0.68	0.47	-0.11	0.45	0.06	0.43
Ind: Photographic Equipment (dummy)	-1.14	0.54**	0.72	0.56	-0.46	0.54	-0.12	0.51
Ind: Wholesale & Stores (dummy)	0.10	0.52	0.56	0.53	0.01	0.51	0.34	0.54
Product Category: MP3 Player (dummy)	-0.68	0.26**	0.11	0.28	-1.28	0.27***	-0.45	0.30
Product Category: Portable Computer (dummy)	0.19	0.30	0.41	0.31	-0.73	0.30**	0.25	0.35
Product Category: Digital Camera (dummy)	-0.00	0.33	0.80	0.33**	-0.50	0.32	0.60	0.30**
U.S. company (dummy)	0.11	0.20	0.15	0.20	0.27	0.20	-0.19	0.21
de novo (dummy)	-0.23	0.20	0.08	0.20	0.09	0.20	-0.08	0.22
Constant	1.09	0.52**	-1.04	0.54*	0.55	0.52	0.08	0.51
F-value[b]	2.18***		1.83**		2.48***		3.32***	
R^2	0.23		0.21		0.27		0.23	

n= 142; *** p≤0.01; ** p≤0.05; * p≤0.1

Figure 1: Conceptual framework and hypotheses