

Integration of outside-in and inside-out entrepreneurial marketing capabilities, marketing agility, and resources for entrepreneurial firms performance

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Abstract

Purpose

The resource-based view (RBV) emphasises the importance of resources for firm performance. However, recent research argues that the focus on firm performance should also be based on inside-out (IO) and outside-in (OI) capabilities. Specifically, we study the importance of resources on product development (an IO) and market driving (an OI) entrepreneurial marketing capabilities on entrepreneurial firm performance in an emerging market. The study further investigates the moderating effects of marketing agility on the relationship between resources and capabilities.

Design

The study is based on survey data of a multi-industry sample of 102 entrepreneurial firms in Pakistan.

Findings

The results show that marketing agility moderates the relationship between resource-mix flexibility on product development and market driving capabilities, but it only positively moderates the relationship between resource-mix inimitability and product development capability. Marketing driving and product development capabilities play a role as parallel mediators between resources and firm performance.

Originality

The study lies at the intersection of marketing and entrepreneurship literature by 1) providing a nuanced understanding of marketing agility as a boundary spanning factor for IO and OI entrepreneurial marketing capabilities; 2) integrating the resource types and product

<text><text><text> development from IO and market-driving from OI capabilities perspectives; 3) identifying the effects of IO and OI on firm performance providing guidance for entrepreneurs seeking improved firm performance.

Keywords: Marketing agility; product-development capability; market-driving capability; flexible resources; inimitable resources, firm performance; emerging market

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Introduction

The characterisation of inside-out (IO) and outside-in (OI) capabilities suggests they may have differential transmission mechanisms on business performance (Saeed *et al.*, 2015). Inside-out (IO) capabilities emphasise building *internal* (firm) resources and capabilities that can influence and enhance responsiveness to the external environment. On the other hand, outside-in (OI) capabilities focus on responsiveness to the *external* environments to enhance and sharpen internal processes in capturing and seizing emerging market opportunities. However, there is a lack of research that integrates the two approaches to show which resource types influence entrepreneurial marketing capabilities, and the conditions under which the effects of these capabilities are most influential in enhancing entrepreneurial firms' performance (Liang and Gao, 2020; Mu *et al.*, 2018; Voola and O'Cass, 2010). Limited research has examined those marketing capabilities that are often driven by entrepreneurial efforts with resources (Agic *et al.*, 2016).

Resource-based view (RBV) argues that when a firm has *inimitable resources* that are rare and difficult for competitors to match, it can gain a sustainable competitive advantage (Barney *et al.*, 2011). This is especially the case if there are no strategic equivalents since inimitable resources can be the primary drivers of superior performance (Barney, 1991). On the other hand, scholars have lately been debating and shifting attention to how resources can be structured and flexibly bundled together to address strategic changes at low cost and high speed (i.e. *resource flexibility*) (Sirmon *et al.*, 2008; Sirmon *et al.*, 2011). The direct effect of resources on firm performance has generally been well understood, however, not so when for the resource-driven entrepreneurial marketing capabilities (Morgan *et al.*, 2018). Given this

gap, the overall objective of this article is to examine the importance of resource inimitability and resource flexibility in entrepreneurial marketing capabilities for entrepreneurial firms.

Product development capability is defined as *IO* (internal) entrepreneurial marketing capability (Mu *et al.*, 2018) that helps firms in developing and bringing new offerings to market (Zhou *et al.*, 2019a). The ability to find and capitalise on new market opportunities are core competences of entrepreneurship, such as by predicting consumer demands and making solutions available for them (Packard and Burnham, 2021). Hence, product development capability can be classified as a marketing capability that often requires risk taking and investment by entrepreneurs. On the other hand, *market driving capability* has been defined as an *OI* (external) marketing capability which allows a firm to deal with market exigencies such as shifting market expectations and market structures (Ghauri *et al.*, 2016). Entrepreneurs with market driving capabilities take risky initiatives in attempting to change customer perceptions and create barriers to imitation by competitors (Ghauri *et al.*, 2016). The first objective of this study is to assess the impact of *resource inimitability and resource flexibility on product development (IO) capability, and market driving (OI) capability.*

In recent studies, entrepreneurship scholars assert that dynamic capabilities should be considered in entrepreneurial initiatives and firm performance (Abu-Rumman *et al.*, 2021). Meanwhile, *marketing agility* has emerged as a meta-dynamic capability that deals with responsiveness and adaptation in the event of internally or externally induced change (Khan, 2020). Given the adaptable nature of marketing agility, it may compel firms to develop flexible resources to be able to swiftly address market needs at lower cost and in less time. This naturally raises a question whether marketing agility interacts with resource flexibility to enhance product development (IO) and market driving (OI) capabilities. Although, inimitable resources are often significant drivers of performance, it is also critical to understand whether marketing agility interacts with inimitable resources to impact product development (IO) and

market driving (OI) capabilities. This is because interacting with agility, inimitable resources may be more influential in product development and market driving capabilities which often requires market knowledge, change, learning, creativity, responsiveness, and upgrading. Hence, the second objective of this research is to examine the *conditional effects of marketing* agility on the relationship between resources (flexible and inimitable) and product development (IO) and on market driving (OI) capabilities that have hitherto not been sufficiently examined in extant entrepreneurship and marketing interface. We also examine the simultaneous mediation effects of market driving and product development capabilities on entrepreneurial firm performance to determine which capability has a greater impact on firm performance.

Theoretically, this research contributes to OI and IO capability theories and RBV. Our research consolidates theoretical perspectives in fragmented domains of marketing and entrepreneurship literature and classifies different entrepreneurial marketing capabilities and resources under the IO and OI framework. While businesses are competing to achieve marketing agility (Forbes, 2020), to the best of our knowledge, scholarly work has not vet defined and empirically examined marketing agility from outside-in and inside-out capability perspectives. Hence, another key contribution of this study is defining marketing agility as a boundary condition of inside-out and outside-in capabilities. Given recent research in emerging market argues that both inside-out and outside-in capabilities should be seen as equally important (Liu *et al.*, 2021), this study contributes by examining the efficacy of IO and OI capabilities in the performance of emerging market entrepreneurial firms. NOT PRES

Literature Review and Hypotheses Development

Inside-out versus Outside-in Entrepreneurial Marketing Capabilities

Inside-out capabilities use internal competencies of a firm as a starting point for improving firm performance. The focus of these capabilities and resources are broadly internal e.g., marketing-mix based capabilities (Saeed *et al.*, 2015). To exemplify this, an IO focused entrepreneurial capability may influence performance through product development (Greenley *et al.*, 2005; Yrjölä *et al.*, 2018). IO capabilities are also likely to put greater emphasis on increasing internal efficiency and competencies development to meet market requirements, such as for developing new products to meet market needs.

On the other hand, outside-in entrepreneurial capabilities take the *external* environment as a starting point for improving firm performance, and to deal with market exigencies. For example, OI capabilities seek to understand how customer needs and competitive trends are changing, and then the capabilities are directed in alignment within the firm to anticipate shifts in the market place (Mu, 2015; Mu *et al.*, 2018). Firms with well horned OI capabilities look outside the firm to understand market exigencies, e.g., how market opportunities are evolving, and how these can be capitalised in addition to how competitors are behaving in order to create a competitive position. In short, IO and OI entrepreneurial capabilities are both determinants of firm performance (Saeed *et al.*, 2015)., but the difference lies in IO capabilities emphasising internal factors, whereas OI capabilities focus on external factors.

A specific IO entrepreneurial marketing capability is product development capability, which centres on developing, experimenting, commercialising, inventing new products and services to cater the market (Sheng, 2017). A product-centric approach to marketing is consistently argued as an inside-out approach (Petersen and Schmid, 2021). According to Kuncoro and Suriani (2018), new product development reflects internally planned activities for an outcome. As a marketing focused entrepreneurial capability, product development requires entrepreneurial knowledge and experience (Deeds *et al.*, 2000).

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By contrast, market driving capability is a specific OI entrepreneurial marketing capability (Schindehutte *et al.*, 2008) that focuses on creating and changing industry structure and behaviours in the market (Khan *et al.*, 2020; Stathakopoulos *et al.*, 2022). The capability to drive market behaviour defines the protocols for doing business by considering its effects on industry participants, such as competitors and customers (Jaworski *et al.*, 2000). For example, customer driving capability is a component of market driving capability that refers to entrepreneurs' ability to encourage customer to re-think their likes and dislikes, influence their value perceptions, and offering them solutions for needs that they did not even ask for. Competitor driving capability is another component of market driving capability that captures entrepreneurs' ability to take initiatives to minimise competitors' advantages. Market driving capability is principally designed to address exigencies of the market. This is also a marketing focused entrepreneurial capability as it involves dealing with the risks and costs, and creating new challenges and opportunities in the market (Ghauri *et al.*, 2016).

Product development and market driving capabilities require strategic entrepreneurial behaviours to exploit new opportunities (Anderson *et al.*, 2019), however, these capabilities are different from one another as product development capabilities are internally planned and implemented (Mu *et al.*, 2018) while market driving capabilities are externally oriented to influence market behaviours (Stathakopoulos *et al.*, 2022). Both product development and market driving capabilities are important in entrepreneurship literature for two reasons: 1) both are critical for firm performance, but prior studies have not examined which of these two factors better determine firm performance; 2) by simultaneously studying these inside-out and outside-in capabilities, this study informs managers of entrepreneurial firms on how to allocate resources in pursuit of superior performance.

Resource-mix: Flexible and Inimitable

Resources are a combination of capabilities and assets of an organisation, and they can also be classified as OI or IO depending upon whether they provide OI or IO competitive advantage at an operational level (Greenley *et al.*, 2005). The characteristics of resources can influence the approach towards dealing with the market environment and product development processes. Resource characteristics play an important role in determining their strategic importance to the firm (Perks, 2000). According to the RBV (Barney, 1991; Barney *et al.*, 2011), a business should possess valuable, inimitable or rare resources to achieve superior performance. This view places emphasis on internal efficiency and cost reductions.

While inimitable resources are important to underpin some capabilities, firms should also focus on building resources that can be flexibly deployed to address market needs in the ever-changing market environment (Sirmon *et al.*, 2008; Sirmon *et al.*, 2007; Sirmon *et al.*, 2011). In other words, resource-mix flexibility allows the firm to use an array of resources due to their multiple applications (Wei *et al.*, 2014). Thus, when a firm has flexible resources, it allows the firm to adapt or switch effectively from one use to another at low cost and speedily. For example, when resources can flexibly adapt to change, it allows the firm to increase production volume and product mix (Malik and Kotabe, 2009). However, this requires entrepreneurial effort. Resource flexibility is an internal capability that allows entrepreneurs to adapt the use of resources to address the changing market environment (Teece *et al.*, 2016). In the same vein, resource inimitability is also IO as inimitable resources are usually possessed by fewer firms and difficult for competitors to match.

We argue that resource-mix flexibility is important for entrepreneurial firms operating in emerging markets such as Pakistan (context of this study), where external resource munificence and institutional support is low (Aslam *et al.*, 2018). Pakistan is a dynamic emerging market, where customer needs and wants and competitive trends are rapidly evolving due to the rising middle class and rapid urbanisation. Moreover, Pakistani firms often face weak support structures to recover from losses (Malik and Kotabe, 2009). Thus, having flexible resources can broaden alternative approaches for entrepreneurs to respond to environmental exigencies (Zhou and Wu, 2010).

It has been well established that entrepreneurial capabilities are underpinned by resources (Menguc and Auh, 2010), however, there has been dearth of research that examines whether flexibility or inimitability of resources have differential effects on entrepreneurial marketing capabilities for enhancing entrepreneurial firm performance. These relationships are valuable to examine as they would allow firms to reconfigure their resources to overcome the potential myopia of IO focused approaches (Day, 2014). Thus, we hypothesised:

H1: Inimitable resources have a positive effect on a) product development capability, and b) market driving capability.

H2: Flexible resources have a positive effect on a) product development capability, b) and market driving capability.

Past research has shown the direct effects of product development capability (Pang *et al.*, 2019; Salunke *et al.*, 2019) and market driving capability (Ghauri *et al.*, 2016) on firm performance. Recent research suggests that inside-out capabilities enhance business efficiency, while outside-in increases customer retention, satisfaction and sales (Rust, 2020). Thus, we hypothesise that product development (IO) and market driving (OI) entrepreneurial capabilities have significant effects on firm performance.

H3: a) Product development and b) market driving capabilities positively influence firm performance.

Similarly, entrepreneurial capabilities are known to mediate the relationship between resources and firm performance (Lin and Wu, 2014; Lu *et al.*, 2010). Thus:

H4: Product development capability and market driving capability mediate the relationship between a) inimitable resources and firm performance, and b) flexible resources and firm performance.

Marketing agility as a boundary spanning capability

The concept of agility is defined as the ability of a business to sense and react to market opportunities for competitive actions (Roberts and Grover, 2012), and the capability to identify and seize opportunities for innovation (Sambamurthy *et al.*, 2003; Setia *et al.*, 2008). Over the past few years, scholarly attention has shifted towards defining marketing agility as a meta-capability (see Table 1) that outlined the existing conceptualisation of marketing agility. It is noteworthy that Table 1 highlights some characteristics of marketing agility as OI focused (such as market sensing), and other characteristics as IO focused (adapting and reacting to change). These past definitions do not distinguish how marketing agility is a unique marketing capability, or where it resides in the spectrum of the IO and OI capability domains.

(Insert Table 1 here)

Prior research identifies some common characteristics of agility. First, agility demonstrates an ability to quickly sense and respond to market changes ahead of competitors (Khan, 2020; Roberts and Grover, 2012). Secondly, it is context-specific meaning that firm can be agile in different domains such as supply chain, marketing, manufacturing, IT, and sales (Roberts and Grover, 2012). Finally, it is conceptualised as an adaptable capability in order to respond to a change (Eckstein *et al.*, 2015). It reflects three core aspects: quick sensing before competition, adaptability, and reaction. These aspects makes it distinguishable from mere responsiveness and simple market sensing. It possesses overlapping elements of flexibility, speed of market sensing, and quick responsiveness.

Marketing agility facilitates organisational ability to rapidly scan the external environment for threats, opportunities, emerging customer demands, and competition. This underscores the OI capability characteristic of marketing agility. Prior research also affirmed that market sensing capability is an OI capability (Liang and Gao, 2020; Ngo *et al.*, 2019). However, marketing agility is not merely a market sensing capability as it also entails proactiveness and responsiveness in managing emerging environmental exigencies. Thus, it cannot be solely categorised as an OI capability. Based on the above arguments, we define marketing agility as:

A boundary spanning dynamic capability at the interface between inside-out and outsidein capabilities that constitutes the ability to quickly scan the external environment as well as the capacity to adjust and respond as circumstances dictate.

There are several reasons why marketing agility may interact with flexible resources to enhance product development and market driving entrepreneurial capabilities. First, a number of recent research by marketing scholars in resource-based view raises growing doubts on placing emphasis on building sustainable competitive advantage (McGrath, 2013). In hyper-competitive markets, competitive advantages are rapidly eroded or created (Day, 2014). Thus, firms in such markets should be able to quickly reconfigure capabilities and resources in order to transit from one opportunity to another expediently. Second, the underlying conceptualisation of marketing agility resides in reconfiguring resource-mix and capabilities to meet changing demands and conditions (Vendrell-Herrero *et al.*, 2017). Third,

the capability to appropriately allocate resources influences firm performance. Under complex environmental conditions, marketing agility enhances firm performance (Khan, 2020), and resources are often deployed to develop other capabilities (Baden-Fuller and Teece, 2020). Thus, marketing agility may interact with different types of resources in the development of inside-out and outside-in capabilities.

According to Fredericks (2005), successful firms often switch across a range of resource-mix in order to make a strategic change. This implies that higher marketing agility may enable effective use of flexible resources to attain greater adaptive functionality. When a firm possesses a flexible resource-mix, it reduces the time in locating the resources required to meet market challenges. For example, flexibility in resource allocation helps firms to increase the number of new product configurations (Worren et al., 2002). Similarly, it is argued that resource flexibility enables firms to deploy internally accumulated resources for new purposes (Li et al., 2017). High marketing agility may strengthen this relationship, as it is dynamic and entails flexibility, speed, adaptation and responsiveness in value creation (Khan, 2020). In a dynamic emerging market, a high level of flexibility may enable firms to acquire and integrate new knowledge rapidly through changing routines and minimising rigidity (Li et al., 2017). When there is high flexibility, firms can integrate the acquired knowledge and explore new alternatives expeditiously (Wei *et al.*, 2014). When a firm has such a dynamic capability i.e., marketing agility along with flexible resources, it is plausible for firms to develop key entrepreneurial capabilities to underpin superior performance. Despite the importance of marketing agility and resources, prior research has not paid attention to how marketing agility may interact with flexible resources to influence inside-out (product development) and outside-in (market driving) capabilities. Hence, we posit the following relationships:

H5: *Marketing agility moderates the relationship between flexible resources and a)* product development capability, b) market driving capability, such that the relationships are stronger when marketing agility is high than when it is low.

When a firm has inimitable resources, these resources pose a barrier to competitors in terms of matching the firms' physical resources and capabilities. Thus, an inimitable resource-mix is often the strongest predictor of superior firm performance (Ghauri et al., 2016). In a situation where competitors are able to match resources, a firm's positional advantage is eroded. In this regard, it is argued that inimitable resources must have little or no strategic equivalents in order to yield a sustainable competitive advantage (Barney, 1991). We contend that marketing agility interacts with inimitable resources to add further effectiveness to IO and OI entrepreneurial capabilities. The recent study by Tang *et al.* (2022) on resources, marketing agility and innovation finds that resource bricolage positively influences low cost innovations and the influence of resources bricolage on innovation is mediated by exaptation. Marketing agility as a moderator regulates the influence of resource bricolage and exaptation. Similarly, we posit the following relationships:

H6: Marketing agility moderates the relationship between inimitable resources and a) product development capability, b) market driving capability; such that the relationships are stronger when marketing agility is high compared to when it is low. h.

Figure 1 represents the conceptual model of this study.

(Insert Figure 1 here)

Data collection

We used a multi-industry design to enhance data variability. We invited Pakistani firms to participate in the survey. Significant obstacles have been reported in data collection from this market because many firms are reluctant to share data pertaining to financial performance (Malik and Kotabe, 2009). Further, the mail system in this country is an unreliable approach for data collection (Malik and Kotabe, 2009). Similar problems were reported in another study (Aslam et al., 2018). In this situation, personalised approaches are suitable means for data collection. Thus, we employed personal visiting approach to explain the purpose of data collection and ensure the participants about the confidentiality of their data. A bilingual (Urdu and English speaking) research assistant was instructed the project details and objectives, and use of the survey instrument.

The data was collected from Pakistani businesses, who principally focus on the domestic market. We requested the firms to participate only if they were entrepreneurial in nature i.e., defined as their involvement in entrepreneurial activities e.g., market driving and innovative product development activities. The design of the study was one questionnaire per firm. The questionnaire was developed entirely in English; being an ex-British colony, English is a widely spoken language especially in business. Altogether, 280 firms across different industries were contacted. The response rate was approximately 39%. The high response rate is mainly due to personal visits as there are more opportunities to convince respondents to participate (Dillman *et al.*). A total of 110 completed questionnaires were received. Eight partially completed questionnaires were deleted because of missing critical data. This reduced the final sample to 102.

Managers were screened based on their involvement in the entrepreneurial marketingg Res oriented decision making to ensure they met the criteria for participation. We ensured that

participants were either the owner or at least a senior manager. The participants' industry profile is shown in the Table 3.

(Insert Table 3 here)

Scales

The scales were adapted from past studies and deemed reliable as they have been validated in the past studies. We requested participants to complete the survey considering the company situation over the past three years.

Marketing Agility: Participants rated a 5-point scale (1= hardly at all; 5 = very easily) to indicate the extent their business could rapidly respond to new competitive and market conditions in comparison to competition. The four-item scale was adapted from Asseraf and Shoham (2019).

Product development capability: This scale comprised items that captured a firm's ability to experiment, develop, and commercialise new products and services. The five-item scale, adapted from Sheng (2017), used a 5-point Likert scale (1= strongly disagree; 5 = strongly agree).

Market driving capability: The scale contained seven items measured on a 5-point Likert scale (1= strongly disagree; 5 = strongly agree) to capture firm's market driving capability Kuncoro and Suriani (2018).

Flexible resources: We asked the respondents to rate their resource-mix flexibility on a 5-point scale (1= hardly at all; 5 = very easily). The five items came from Wei *et al.* (2014).

Inimitable resources: This four-item scale for resource-mix inimitability was adapted from Morgan *et al.* (2006) and measured on a 5-point Likert scale (1= strongly disagree; 5 = strongly agree).

Firm performance: The five-item scale for firm performance was adapted from Ghauri *et al.* (2016), and measured performance relative to competition on a 5-point scale (1= much worse than competitors; 5 = much better than competitors).

Control and marker variables

We controlled for industry type, age, and size of the firm (Khan and Khan, 2021). We also included a scale on resilience in this study that was used as a marker variable to test for common method variance (Ricciardi *et al.*, 2016).

Data Analysis

Data was subjected to exploratory factor analysis. This resulted in six factors being identified. All items loaded onto their respective constructs as per prior operationalisations (Table 4).

(Insert Table 4 here)

The Cronbach's alpha values (all > .75) confirmed the reliability of the scales (see Table 5). The average variance extracted (AVE) of each factor was greater than .50 and greater than the square of correlations between the factors; therefore, the factors were discriminately valid and support construct validity. Results of confirmatory factor analysis in structural equation modelling further suggested strong psychometric properties. The measurement model provided a good-fit (CMIN/df = 1.33, p = <.01, CFI = .91, TLI = .90, IFI = .91, RMSEA = .05).

(Insert Table 5 here)

Common method variance bias (CMV) was also controlled using procedural remedies suggested by Reio Jr (2010). We reduced the bias by ensuring the confidentiality of the participants, informing them that there was no preferred response, used a simple-worded

questionnaire, and provided clear instructions to complete the questionnaire. We then followed the marker variable approach suggested by Lindell and Whitney (2001) and Malhotra *et al.* (2006) to test for CMV issues. We looked for the smallest positive correlation in the matrix between resilience (additional construct measured in the questionnaire) and marketing agility (r = 0.025) and used this as the marker variable as a proxy for CMV. The results suggest that all the significant correlations (n=16) remained significant after adjusting for CMV except for one (correlation between resilience and marketing agility t-value =1.955 which could be assumed significant at one-tailed). We re-ran the calculation with second lowest positive correlation to avoid being data driven and the results remained the same. The second lowest positive correlation is considered a very conservative estimate of CMV (Lindell and Whitney, 2001). We concluded that CMV was not a problem in this study.

Results

We used structural equation modelling (AMOS 24) to test hypothesis H1-H4. We then used conditional MODPROBE model by Hayes (2012) to analyse H5 and H6. We used MODPROBE macro as it used a regression-based framework to analyse statistical moderation effects in the relationship between independent and outcome variables. The macro estimates the significance based on confidence intervals, which ensures precision in determining the moderation effects. Moreover, this method is widely used to examine the moderation effects (Giebelhausen *et al.*, 2021; Withers *et al.*, 2011). Firm size, industry type, and age of the firm were controlled for in the model.

An SEM model with 5000 bootstrap samples was used to test the mediation model. The model fit the data well ($\chi^2/df = 1.31$, p <.01; CFI = .91; TLI = .90, IFI =.91, RMSEA = .05). As shown in Table 6, inimitable resources positively influenced product development (β

= .18, p <.05) and market driving capabilities (β = .32, p <.01). Thus supporting H1a and H1b respectively. Flexible resources influenced product development capability (β = .30, p <.01) but did not influence market driving capability (β = .07, p >.05). Therefore, we accepted H2a but rejected H2b. Both product development capability (β = .24, p <.01) and market driving capability (β = .37, p <.01) positively influenced firm performance; thus, we accepted H3a and H3b.

Both product development (β = .24, p <.01) and market driving capabilities (β = .37, p <.01) mediated the relationship between flexible resource and inimitable resouces and firm performance (see the reduced effects size of resource-mix on firm performance in Table 6). We tested the confidence interval for the contrast predictive power of both mediators in multiple mediation model (Preacher and Hayes, 2008) using a contrast effect equation (f = a1b1 - a2b2¹). The pairwise contrast established that the two indirect effects did not differ significantly (CI*ma* = -.66; .69, CI*rmf* = -.63; .72; CI*imr* = -.91; .76²). Zero lies in the confidence interval; therefore, the effect magnitude of the two mediators in the model could not be distinguished, implying the parallel mediation of market driving and product development capabilities fully mediates the relationships. Therefore, both H4a and H4b were supported (See Table 6).

(Insert Table 6 here)

Next, we used MODPROBE to test the moderating effects of marketing agility. As Table 7 shows, the interaction of marketing agility and flexible resources was positive and significant on market driving capability (β = .24; LLCI = .08; ULCI = .40, p <.01). The

¹ The specific indirect effects of a1b1 are through product development capability and a2b2 through market driving capability. Direct effect of independent variable (IV) effect on mediator 1 (product development capability) = a1; effect of mediator 1 on dependent variable (firm performance) = b1; direct effect of IV on mediator 2 (market driving capability) = a2; and effect of mediator 2 on dependent variable (firm performance) = b2. We calculated this equation "f" for each of the IVs (marketing agility, f = .12; flexible resources, f = .12; and inimitable resources, f = .18).

² Confidence interval calculated as CI = f + 1.96 (Variance f) $^1/2$ (See Preacher and Hayes (2008) for calculation for CI and variance).

interaction effect was positive but non-significant for product development capability ($\beta =$.10; LLCI = -.04; ULCI = .24, p = .17). However, since the hypothesis was robust, one could use the one-tailed test and the hypothesis is supported at p=.1 level. The conditional effect model (Table 8) showed the positive increase in effect size on product development capability as marketing agility increased. Thus, it was concluded that moderation was positive and significant leading to acceptance of H5a and H5b. Additionally, the interaction of marketing agility and inimitable resources was significant for product development capability ($\beta = .17$; LLCI = -.01; ULCI = .35, at p = .06 level) leading to acceptance of H6a. However, H6b was rejected because the interaction effect was not significant ($\beta = -.03$; LLCI = -.22; ULCI = .17, p = .79) (see Table 7).

(Insert Table 7)

Table 8 and Figure 2a show that the effects of flexible resources on product development capability was significant in all conditions of marketing agility (low β = .32, p <.001; medium β = .42, p <.001; and high marketing agility β = .52, p <.001). The relationship was stronger at high, rather than low, level of marketing agility. The effect of flexible resources on market driving capability and firm performance was only significant when the firm marketing agility was moderate or high (Table 8 and Figure 2b). Table 9 and Figure 3 show that the effects of resources' inimitability on product development capability was significant under medium and high levels of marketing agility (low $\beta = .03$, p = .81; medium β = .20, p <.05; and high marketing agility β = .38, p <.001).

(Insert Table 8 and Figure 2 here)

(Insert Table 9 and Figure 3 here)

Discussion

Research on inside-out (IO) and outside-in (OI) entrepreneurial marketing capabilities is in its infancy stage. This study provides insights into the two types of resources and entrepreneurial marketing capabilities' mechanism through which entrepreneurial firms in an emerging market could enhance their performance. Specifically, the study found that resources indirectly influenced firm performance through the parallel entrepreneurial marketing capabilities of product development (IO) and market driving (OI) as mediators. Marketing agility strengthens the positive relationships between flexible resources and both product development and market driving capabilities. Marketing agility also strengthens the positive relationship between inimitable resources and product development capability, but it does not moderate the relationship between inimitable resources and market driving capability.

Several researchers have investigated IO and OI capabilities; however, their underlying assumptions for their effects on performance have been criticised recently (Asseraf and Shoham, 2019). This is because most studies have focused solely on either the direct or indirect relationship between OI and IO capabilities and performance. Thus, the previous models were underspecified as they did not consider boundary conditions. Our study contributes to the literature at intersection of entrepreneurship and marketing by examining the efficacy of resource-mix on firm performance via the entrepreneurial marketing capabilities. Indeed, firm innovation requires the synergy of entrepreneurial behaviour and resources (Hughes *et al.*, 2021).

Given that resource-based view has been criticised for arguing that superior resources such as inimitable resource are a sufficient explanation for better firm performance (Kraaijenbrink *et al.*, 2010), our findings assert that entrepreneurial firms must also employ marketing capabilities to reconfigure resource to ensure better performance. This study extends the body of knowledge by looking at how firms' resources can influence performance via entrepreneurial marketing capabilities under different conditions of marketing agility. Our findings show the relationship between resources and entrepreneurial capabilities is more nuanced than previously discussed. We found that both types of resources have indirect effects on entrepreneurial firm performance and that these effects are enhanced under conditions of high marketing agility (a mediated-moderation relationship), with an exception of the non-significant conditional effects of inimitable resources on market driving capabilities.

Theoretical implications

This paper made several contributions to OI versus IO capability theory and resourcebased view by using resource-mix and marketing-focused entrepreneurial capabilities in the following ways. Overall, it enriches the IO and OI entrepreneurial perspectives by simultaneously investigating the antecedents, conditional effects and performance implications in a contextual setting of an emerging market, Pakistan. The issue on how IO and OI marketing-focused entrepreneurial capabilities improve firm performance is debatable (Zhou *et al.*, 2019b) and complex (Easterby-Smith *et al.*, 2009). Some studies have emphasised linking agility with innovation-related capabilities (Ngo *et al.*, 2019), while others have suggested product development and market behaviour setting capabilities should be used as possible mediators to explain the role of marketing agility (Zhou *et al.*, 2019a). By linking resources with marketing capabilities. Past studies in the entrepreneurialmarketing interface find that environmental conditions and resources moderate the entrepreneurial-marketing processes (Whalen *et al.*, 2016). We advanced this research stream by suggesting that market driving, and product development capabilities are underpinned by

flexible and inimitable resources, and marketing agility moderates these relationships with an exception of inimitable resources and market driving capability. These capabilities are vital for firms operating in weak resource environment settings such as those in emerging markets, where formal institutional support is often limited.

Limited research has paid attention to the critical resources needed for entrepreneurial marketing capabilities such as market driving behaviour (Ghauri *et al.*, 2016). This study shows that the relationship between flexible resources and entrepreneurial firm performance is mediated by product development and market driving capabilities. The direct relationship between flexible resources and IO/OI capabilities depends on the level of market agility such that the relationship is strong when marketing agility is high. This suggests that once entrepreneurial firms have made investment in flexible resources, they need marketing agility for new product development to enhance performance. Scholars argue that marketing agility is critical for new product development and marketing mix adaptation (Khan, 2020; Zhou *et al.*, 2019a). This study extends the body of knowledge by finding that marketing agility interacts with flexible resources to enhance new product development capability. These findings imply that resource-mix flexibility help in developing new products when a firm is highly proactive in sensing the market opportunities and responsive towards those opportunities and market needs. Hence, agility also acts as a condition for the effective utilisation of resources in building inside-out capabilities.

Ghauri *et al.* (2016) asserts that marketing driving capabilities are hard to copy by competitors. Similarly, our findings demonstrate the usefulness of inimitable resources for market-driving activities in resource constrained environments. We find that marketing agility does not moderate the relationship between inimitable resource-mix and market driving capabilities. These findings imply that inimitable resources may not remain inimitable as given time and resources, all resources can be increasingly copied by

determined competitors. Also, given agility is an adaptive capability in response to market changes, it may not strengthen the positive influence of inimitable resources on market driving capabilities. Our study found that inimitable resources interact with marketing agility in influencing product development capability. These findings suggest that high agility supports new product introductions that are underpinned by entrepreneurial efforts, given that product development often has to take place amidst ongoing changes in market conditions. Through marketing agility, a firm is able to understand changing customer needs and develop suitable offerings (Khan, 2020). Thus, this nudge entrepreneurs to meet market requirements and sustain competitiveness through new product introductions.

To the best of our knowledge, no prior studies have examined marketing agility from an OI versus IO capability perspective, although its importance has been emphasised for firm performance (Hagen *et al.*, 2019). Indeed, calls have been made to extend the theoretical development by testing potential boundary conditions and mediators (Zhou *et al.*, 2019a). We operationalised marketing agility as a boundary spanning between resources and OI and IO entrepreneurial marketing capabilities – this is important because marketing agility is not as simple as market sensing capability (Mu *et al.*, 2018; Ngo *et al.*, 2019). Another contribution of this study is to define market agility from inside-out and outside-in theoretical perspective and validating its moderating effects between flexible resources and product development capability, flexible resources and market driving capability, as well as inimitable resources and product development capability.

Literature suggests that types of resources form the basis for developing certain capabilities and resources (Baden-Fuller and Teece, 2020). Thus, this study validates this notion and enriches literature on inside-out and outside-in capabilities by examining the effects of different resources and marketing agility which is a relatively new phenomenon in marketing literature. This study also extends the entrepreneurship literature as limited studies

have examined the formation and enabling role of resources and entrepreneurial marketing capabilities that support entrepreneurial firms' performance in an emerging market.

A study at the nexus of entrepreneurship and marketing suggests that market orientation can enhance firm performance when under-resourced companies collaborate with competitors (Crick *et al.*, 2021). Studies on emerging markets further suggest that dynamic capabilities play a vital role in firm performance (Malik and Kotabe, 2009). However, these prior studies have paid scant attention to the specific role of entrepreneurial market-oriented capabilities and the role of resources that underpin performance of entrepreneurial firms. Our study answers the calls for more research specifically in entrepreneurial marketing (Most *et al.*, 2018) and deeper examination of issues at the interface of marketing and entrepreneurship (Hansen *et al.*, 2020).

Managerial Implications

This study offers several implications to firms involved in entrepreneurial marketing activities. Our findings suggest that managers should not expect simply a direct relationship between resources and firm performance. The IO and OI entrepreneurial marketing capabilities are the mechanisms for translating the effects of resources into performance outcomes. Our findings demonstrate the critical role of marketing agility in these relationships. Marketing agility is a learned and patterned capability; therefore, it must be embedded throughout the organisational processes in order to realise its benefits. However, this requires time, managerial commitment, and development of a responsive culture (Ngo *et al.*, 2019) and entrepreneurial orientation (Nejad *et al.*, 2014).

Our findings also imply that managers should develop entrepreneurial marketing capabilities via different resource mix for enhancing firm performance. However, they should be mindful that over time, inimitable resources may not remain inimitable as dedicated competitors can still copy or imitate these resources. In order to remain competitive in the market, entrepreneurial firms should be agile and responsive not only to the market but also towards developing and deploying resources that drive entrepreneurial marketing activities e.g., product developments and market driving. From a policy perspective, governments should provide incentives e.g., low-cost financing for local entrepreneurs investing in new product development and market driving capabilities' development and projects because such projects are inherently risky and costly. If successful such projects can contribute to the country's economic development, governments should also offer training programs for entrepreneurial marketing capabilities development and extend resources to firms to undertake new initiatives.

Limitations and directions for future research

This study is conducted in an emerging market i.e., Pakistan. The study could be more robust by increasing the sample size and collecting data from different markets for generalisability. A longitudinal study on the influence of marketing agility could enhance the findings by establishing cause and effect. Future studies could consider other constructs of inside-out (e.g., learning, branding and selling orientations) and outside-in (relational, sociopolitical) capabilities. Given this study finds that agility did not moderate the influence of inimitable resources on market driving capability, future studies can possibly explore the moderating effects of networking with socio-political actors in market driving capabilities. Institutional support can also be studied as a moderator in enhancing the efficacy of resources in developing entrepreneurial marketing capabilities. Similarly, studies can consider the role of top-management teams in developing outside-in versus inside-out capabilities. Studies should examine other types of entrepreneurial marketing activities such as green product development, process and technological developments in understanding the interplay

between marketing agility and different types of resources. Studies can observe the synergetic

effects of marketing and technological orientation (Alerasoul et al., 2022) along with

entrepreneurial orientation in understanding how entrepreneurial firms can gain sustainable

competitive advantage.

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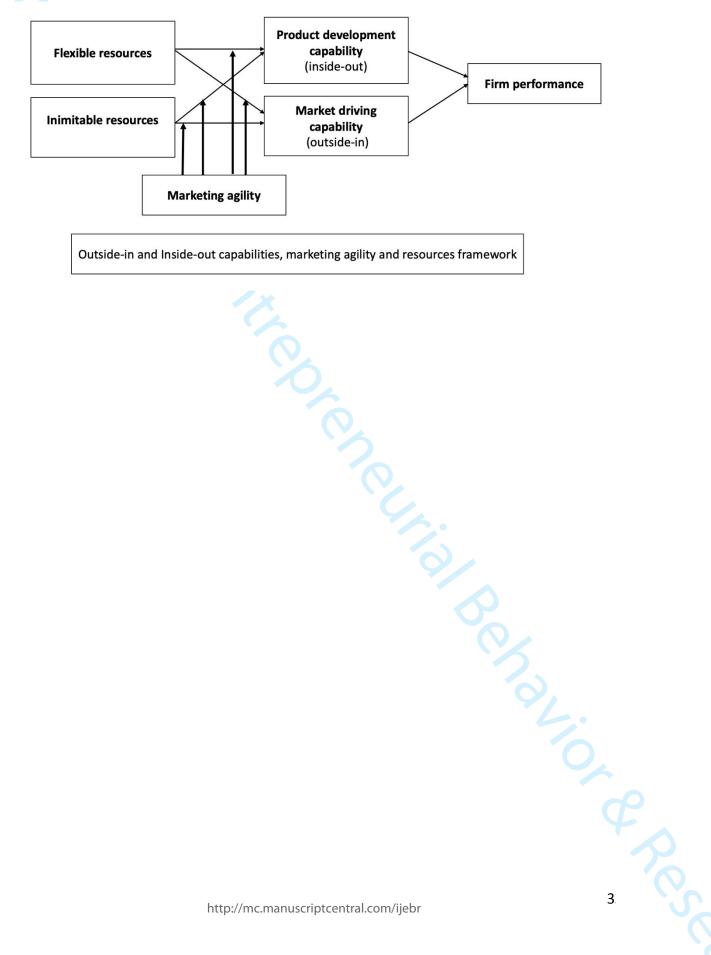
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Figure 1: Conceptual Model



Outside-in and Inside-out capabilities, marketing agility and resources framework

Figure 2: The relationship of flexible resources with product development and market driving capabilities at different levels of marketing agility

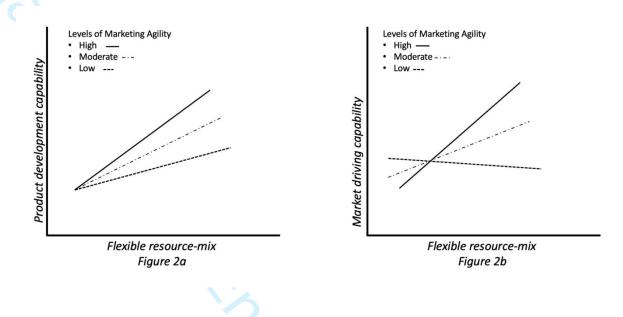
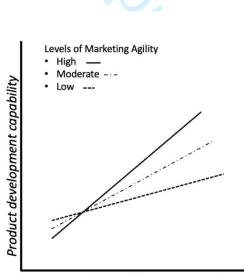


Figure 3: The relationship between inimitable resources and product development capability at different levels of marketing agility



inimitable resource-mix Figure 3

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Source	Definitions	Identified themes: Inside-out and
		Outside-in perspectives
Poolton et al. (2006)	Marketing agility is defined as an active identification of existing and latent customers' needs.	Outside-in
Accardi-Petersen (2012)	Firm capability to effectively adjust <i>internally</i> and <i>externally</i> to changing requirements, competitors' actions and growing demands. When firms are agile, they are quite responsive to strategic changes. This hints that agility possess characteristics of inside-out capability which requires internal changes.	Inside-out and Outside-in
Roberts and Grover (2012)	Firm capability to sense and react to customer-based opportunities and threats.	Outside-in
Arrigo (2018)	Firm can adopt innovations by sensing insights from outside environment. Market knowledge can help firms foster collaborations with stakeholders in order to improve business performance.	Inside-out and Outside-in
Zhou <i>et al</i> . (2019a)	Marketing agility is defined as a sensing, adapting, and responding capabilities of the firm.	Inside-out and Outside-in
Khan (2020)	Marketing agility is a meta-dynamic capability which includes market sensing, flexibility, speed to the market and market responsiveness.	Inside-out and Outside-in
Kalaignanam <i>et al.</i> (2021)	Marketing agility is the extent to which a firm rapidly responds by sensing the market and executing decisions rapidly.	Inside-out and Outside-in
Hughes and Chandy (2021)	Marketing agility is about anticipating market trajectories, integrating it with strategic trajectories, engaging in strategic twists for discoveries of new market insights, and reframing of problems and opportunities.	Inside-out and Outside-in
	http://mc.manuscriptcentral.com/ijebr	3.

	eting Agility Studies			
Authors	Method	Journal/Book	Findings	
Chen <i>et al.</i> (2016)	In-depth case study	Business Horizons	Agility of development techniques are required	
			in order to develop or	
			adjust innovative	
7.1	26 Interniteres	I	products features.	
Golgeci and	26 Interviews with	Journal of Business and Industrial	Both innovation and	
Gligor (2017)	Marketing and Supply chain	Marketing	market learning are marketing and supply	
	executives	Warkeing	chain capabilities that	
	CACCULIVES		are outcomes of agility.	
Zhou <i>et al</i> .	Chinese food	Industrial	Marketing agility	
2019a)	processing industry	Marketing	positively influences	
20170)	survey	Management	firm performance.	
Asseraf and	Israel exporting	International	Marketing agility	
Shoham (2019)	companies survey	Marketing Review	influences firm	
(2017)	companies survey		performance through	
			new product advantage.	
Hagen <i>et al.</i>	In-depth case study	International	Marketing agility is	
2019)	of four	Marketing Review	defined as a flexible and	
,	entrepreneurial	6	responsive approach to	
	firms		market changes.	
Thrassou <i>et al</i> .	Survey	International	Customer-focused	
2018)		Studies of	agility is important for	
,		Management and	innovation.	
		Organisation		
Mishra and Mishra	Survey	Marketing	The study identifies	
2018)	-	Intelligence and	sources and attributes of	
		Planning	marketing agility.	
Moi <i>et al</i> . (2019)	In-depth literature	Organising for the	Agile marketing	
	review	Digital World	capabilities are dynamic	
			capabilities that are	
			required to cater for	
			continuous change in	
			customers' needs and	
			wants in order to gain	
			competitive advantage.	
Khan (2020)	Survey	International	Marketing agility	
		Business Review	influences marketing	
			mix adaptation under	
			high market complexity	
			situation.	
			25	
	http://mc.manus	criptcentral.com/ijebr	35	

Table 2: Key Marketing Agility Studies
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Table 3: Industry and Participants' Profile

,	Industry Participation	%	Designation	0/0
	Retail	27		99
1			Managers	3
0	Fast-food	22	CEO/Director	3
1 2	Banking	16		
2 3	Construction	11		
4	FMCG	8		
5	Other	18		
6 7 8				
9 0 1				
2 3				
4 5 5				
7 3				
				36
	ht	tp://mc.manuscrip	central.com/ijebr	0

Table 4: Exploratory Factor Analysis

Constructs	Factor loading	Mean (S.D)
<i>Tarketing agility</i> (outside-in and inside-out capability)		
• Adapt and react to entry of new competitors.	.89	3.22 (.88)
Adapt and react to emergence of new technology.	.74	3.28 (.94)
Detect and react to new business threat.	.75	3.38 (.94)
Detect and react to new business opportunities.	.77	3.32 (.90)
Product development capability (inside-out entrepreneurial	- / /	5.52 (.90)
narketing capability)		
. We invent new products and services.	.77	3.16 (.99)
. We experiment with new products and services.	.83	3.21 (1.07)
market.	.05	3.21 (1.07)
	60	204(102)
. We commercialize products and services that are	.69	2.94 (1.02)
completely new.	07	2.02(1.00)
. We frequently utilise new opportunities in the markets.	.83	3.02 (1.09)
. We regularly use new distribution channels.	.76	2.97 (1.02)
<i>Tarket driving capability (outside-in entrepreneurial</i>		
narketing capability)	_	
. We regularly launch products/services that are intended	.80	3.25 (1.01)
to make customers rethink their likes/dislikes		
. We encourage customers in market to rethink the value	.79	3.42 (1.13)
they place on certain product/service features.		
. We regularly launch innovative products/services in	.80	3.16 (.98)
markets that offer superior value compared to competitor		
offerings.		
. We present new solutions to our market customers that	.67	2.94 (.93)
they actually need but did not think to ask about.		
. We take the initiative in creating roadblocks for our	.67	3.09 (.93)
competitors in the market.		
. We regularly introduce new practices that change the	.63	2.75 (.95)
way our competitors operate in the market.	6 .	
. Our initiatives often drive new rounds of competitive	.69	2.9(.95)
activity in the market.	\mathbf{O}	4.2 (.2 0)
Texible resources (inside-out)		
. There is a large range of alternative uses to which our	.69	3.23 (.98)
major resources can be applied effectively.	.07	3.23 (.90)
. The difficulty of switching from one use of major	.71	3.35 (.97)
resources to an alternative use is low.	. / 1	5.55 (.71)
	67	$2_{2.17(96)}$
. Time required to switch to alternative resource use is	.67	3.47 (.86)
short.	70	2.20(1.01)
. The costs of switching from one use of our major	.70	3.29 (1.01)
resources to an alternative use are low.	00	2 24 (95)
. The major resources can be allocated to develop,	.80	3.24 (.85)
manufacture, and deliver a diverse line of products.		
nimitable resources (inside-out)	0.4	
. Competitors in the markets find it very difficult to match	.84	3.17 (1.06)
our resources.		
http://mc.manuscriptcentral.com/ijeb		37
	λΓ	

2	No competitor in our markets could replicate our mix of	.78	3.4	3(1.07)
	resources.			
3	Competitors in our markets never seem to match our	.69	3.2	7 (1.04)
	resources.			
4	There is no substitute for our mix of resources.	.77	3.10	0 (1.02)
F	irm Performance			
1	Our financial performance has been outstanding.	.78	3.20	(1.00)
2	Our financial performance has exceeded our competitors.	.78	3.24	(.92)
3	. Our sales growth has been outstanding.	.68	3.33	(1.05)
4	Our sales growth has exceeded our competitors.	.77	3.15	(1.14)
5	Our profitability has met our overall expectation.	.77	3.2	1 (1.21)

Table 5: Discriminant Validity and Reliability

Co	onstructs	Cronbach	Mean	AVE	1	2	3	4	5	6
		alpha								
1.	Marketing agility	.80	3.30	.62	.79					
2.	Product development	.84	3.05	.75	.37**	.87				
3.	Markey driving	.85	3.08	.91	.23*	.25**	.95			
4.	Flexible resources	.76	3.31	.52	.17	.39**	.15	.72		
5.	Inimitable resources	.78	3.20	.60	.24*	.31**	.37**	.21*	.77	
6.	Firm performance	.81	3.22	.71	.28**	.33**	.44**	.24*	.43*	.84

Italic entries on the diagonal show the square root of AVE. Zero order correlation appear below the diagonal (*p = <.05; **p <.01).

Table 6: Direct Model Effects

Constructs	PDC	MDC	FP
	(a)	(b)	
	β	β	β
H1 Inimitable resources	.18*	.32**	.36**
H2 Flexible resources	.30**	.07	.14*
H3a PDC	_	-	.24**
H3b MDC	-	~ -	.37**
H4a Inimitable resources \rightarrow PDC & MDC \rightarrow FP			.16**
H4b Flexible resources \rightarrow PDC & MDC \rightarrow FP			.10*
**p = or < .01; *p<.05			

PDC = *product development capability; MDC* = *market driving capability; FP* = *firm* performance.

Table 7: Moderated Regression Results

Constructs	Product devel		S.E.	p-value	LLCI	ULCI	
	caj	pability					
Marketing agility		.30	.09	<.001	.13	.48	
Flexible resources		.42	.09	<.001	.24	.60	
Interaction		.10	.07	.17	04	.24	
	Market		S.E.	p-value	LLCI	ULCI	
		pability β		1			
Marketing agility		.23	.10	<.05	.04	.42	
Flexible resources		.20	.10	<.05	.00	.40	
Interaction		.24	.08	<.01	.08	.40	
Constructs		duct	S.E.	p-value	LLCI	ULCI	
	developr						
	capab	Bility					
Marketing agility		.34	.10	<.001	.15	.52	
Inimitable resources		.21	.10	<.05	.03	.39	
Interaction		.17	.09	.06	01	.35	
Constructs	Ma	rket	S.E.	p-value	LLCI	ULCI	
		ving		-			
	capab	oility					
Marketing agility		.35	.10	<.001	.15	.54	
Inimitable resources		.13	.10	.20	07	.33	
Interaction		03	.10	.79	22	.17	
	http://mc.manu:	scriptcentr	al.com/ij	ebr		3:	

Table 8: Conditional effects of flexible resources on product development and market driving canabilities at different levels of marketing agility

Marketing agility	Product	S.E	p-value	LLCI	ULCI
	development				
	capability				
	β				
Low	.32	.10	<.001	.12	.53
Moderate	.42	.09	<.001	.24	.60
High	.52	.13	<.001	.27	.77
Marketing agility	Market driving	S.E	p-value	LLCI	ULCI
	capability				
	β				
Low	04	.12	.71	27	.19
Moderate	.20	.10	<.05	.01	.40
High	.44	.14	<.01	.16	.72

Moderator values are the sample mean and plus/minus one SD from mean.

Table 9: Conditional effects of inimitable resources product development at different levels of marketing agility

Low Aoderate High Oderator values are the sat	.03 .20 .38 mple mean and plus/minus one SL	.14 .09 .11	.81 <.05 <.001 an	26 .02 .16	.33 .40 .60	
Aoderate Iigh	.20 .38	.09 .11	<.05 <.001	.02	.40	
Iigh	.38	.11	<.001			
oderator values are the sa		D from me	an			
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	http://me.manuscriptcen		JC01			