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## Base of the pyramid orientation, imitation orientation and new product performance in an emerging market

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### ABSTRACT

This study investigates the effect of base of the pyramid (BOP) orientation on new product performance through the mediating mechanism of imitation orientation. Using time-lagged data from 505 new ventures, the results revealed that (1) BOP orientation positively influences imitation orientation, (2) imitation orientation mediates the relationship between BOP orientation and new product performance, (3) competitive intensity has a negative moderating effect on the relationship between imitation orientation and new product performance, and (4) dysfunctional competition positively moderates the effect of imitation orientation on new product performance. These findings provide a nuanced understanding of the role of BOP orientation in the context of new product performance by introducing imitation orientation as a mediating mechanism. The implications for theory development and directions for future research are discussed.

### 1. Introduction

Since the mid-1990s, there has been a significant growth in market opportunities and entrepreneurial activities in developing and emerging economies, particularly at the base of the pyramid (Cavusgil et al., 2012; Dembek et al., 2020; Ramamurti and Singh, 2009). The term “base of the pyramid” (BOP) denotes the segment of the global population that lives on less than \$2 per day (Prahalad, 2005; Prahalad and Hart, 2002). This market is characterized by illiteracy, poor health conditions, limited resources, inaccessibility to media, geographic isolation, and inexperience in consumption (Hammond and Prahalad, 2004; Prahalad, 2005). Nevertheless, it is also one of the biggest global market frontiers for firms today, encompassing around \$9 trillion in assets and over \$5 trillion in purchasing power (Dembek et al., 2020; Nakata and Antalis, 2015; Prahalad, 2012).

Although it is well accepted that the BOP is a large and important market segment, relatively less attention has been given to understanding firm and industry factors that affect the performance of products in the BOP market. This is a critical limitation, as extant research suggests that a firm’s strategic orientation satisfies customer needs and creates customer value to yield competitive advantages (Jaworski and Kohli, 1993; Rodríguez-Pinto et al., 2011; Wei and Atuahene-Gima,

2009). The ability of firms to develop products for BOP consumers not only improves the living standards of individuals in this underserved market segment but can also enhance product performance and firm success (Prahalad, 2009; Zhu et al., 2019). In other words, firms need to implement appropriate strategies to create value for BOP consumers, and thereby to enhance firm outcomes. Recent research suggests that satisfying the needs of BOP consumers involves value-laden innovations that focus on the idiosyncratic characteristics of the BOP market segment (Hall, 2014; Rosca and Bendul, 2019) and implicitly assumes that firms primarily adopt innovation strategies to serve the BOP market (Schuster and Holtbrügge, 2014). However, an emerging stream of literature suggests that firms could effectively adopt imitation strategies in the BOP market to enhance their performance (Adomako et al., 2021; Nagy et al., 2019). When developing products for the BOP market, the low income of the consumers must be accounted for, as well as other conditions such as inadequate housing, poor standards of living, and remote locations (Decker and Obeng Dankwah, 2022; Nakata and Antalis, 2015; Ramani and Mukherjee, 2014). Imitation orientation, which can aid firms in lowering time and cost associated with new product development, can be effectively used to develop products tailored for the unique characteristics of BOP consumers. Accordingly, we argue that it is critical to investigate firm orientation specific to the BOP market

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(Adomako et al., 2021; Nagy et al., 2019).

Correspondingly, a vast body of literature highlights the effects of the industry's competitive environment on firm strategies and outcomes (Auh and Menguc, 2005; Duanmu et al., 2018; Liu and Atuahene-Gima, 2018; Tsai and Hsu, 2014). According to the industry analysis framework (Porter, 1980), threat of new entrants and rivalry among existing firms can adversely affect the performance of firms. The underlying assumption is that increase in competition reduces the market share of the firms and consequently their profitability. The reduction in market share diminishes the ability of firms to attain the advantage of economies of scale, particularly in markets that are characterized by low profit margins (Hill, 1988). This is a critical issue in the BOP market segment, as these consumers have low income, and affordability is an important factor (Agnihotri, 2017; Prahalad, 2012). While firms could adopt imitation orientation to be successful in industries with low competition, it is likely that this strategy will be less effective in a high-competition industry (Giachetti and Dagnino, 2014). Likewise, institutional environment could affect the type of competition that exists in an industry. Weak institutional environments offer low legal protection to firms and could give rise to dysfunctional competition, which could affect firm strategies and outcomes (Cai et al., 2017; Du et al., 2016; Liu and Atuahene-Gima, 2018). In such environments, competitors could engage in illegal and unfair practices (e.g., trademark violation, patent infringement, counterfeiting) and erode the profits of the firms (Liu and Atuahene-Gima, 2018; Qian et al., 2017; Zhao, 2006). Firms employing innovation strategy might be at a disadvantage in such environments, as competitors could cheaply copy their products without incurring the cost and time associated with R&D activities needed to develop innovative products (Li and Atuahene-Gima, 2001).

Building on prior literature,<sup>1</sup> we examine the mediating effect of imitation orientation in the relationship between BOP orientation and new product performance. Imitation orientation involves mimicking the strategies of competitors instead of pursuing innovative strategies (Lee and Tang, 2018). This allows the firm to quickly replicate the actions of competitors and lower the cost of developing and commercializing new products. Moreover, this strategy allows firms to learn from competitors' mistakes and increase their chances of success (Lieberman and Asaba, 2006). This is particularly important given the limited resources new ventures possess (Lee et al., 1999) as well as the BOP consumers' inability to pay a premium that is generally expected for innovative products (Agnihotri, 2017). Thus, developing new products in such an environment is not only challenging but may require a fundamental rethinking of the way firms operate, how they mobilize their resources, and which routines and processes they adopt (Agnihotri, 2017; Nooteboom, 1994). While recent studies have examined the role of BOP orientation on firm performance (Zhu et al., 2019), our understanding of the mechanism through which BOP orientation affects firms' outcome is very limited. Furthermore, we have limited insights on how firms' orientation affects new product performance. New product success or failure is crucial because firms failing to benefit from new product introduction risk being shut out from the market (Story et al., 2015). Specifically, in this study, we focus on *new product performance*, which is defined as the degree to which "the firm has achieved its profitability, sales volume, and revenue objectives for new products" (Atuahene-Gima, Slater, and Olson, 2005: 466). We also examine the moderating effect of competitive intensity and dysfunctional competition on the relationship between BOP orientation and imitation orientation. The intensity of rivalry among the firms is indicative of the actions and reactions of the industry players, which increases firms' uncertainty and likely affects the strategies they adopt (Auh and Menguc, 2005; Giachetti and Dagnino, 2014). Similarly, dysfunctional competition could impact the effectiveness of firms' strategies, and firms will likely adopt

strategies that enable them to mitigate the adverse effects of competitors' unfair and illegal behaviors (Cai et al., 2017; Liu and Atuahene-Gima, 2018).

Our study makes three important contributions to the literature. First, we integrate insights from the BOP literature (Dembek et al., 2020; Kolk et al., 2014; Srivastava et al., 2020) and the imitation literature (Lee and Tang, 2018; Liao, 2020; Shenkar, 2010a, 2010b) to develop and test a conceptual model to enhance our understanding of how a firm's level of BOP orientation affects new product performance through imitation orientation. Prior research has primarily emphasized the benefits of innovation strategies in BOP markets (e.g., Ramani and Mukherjee 2014; Sengupta et al., 2021). However, new and small firms generally lack resources and might not be able to pursue expensive innovation strategies. Indeed, scholars have noted that resource limitations could hinder new and small firms' ability to engage in experimentation, and this adversely affects new product development (De Carolis et al., 2009; Nooteboom, 1994; Voss et al., 2008). Such firms could mimic the strategies of market leaders to develop less expensive products (Luo et al., 2011) and improve their performance (Lee and Zhou, 2012). By empirically examining the relationship between BOP orientation and new product performance through imitation orientation, we address a critical shortcoming in the BOP literature and emphasize the benefits of imitation orientation. Second, this study explores the roles of two external conditions (i.e., competitive intensity and dysfunctional competition) as moderators of the relationship between imitation orientation and new product performance, thus showing critical boundary conditions under which the impact of imitation orientation on new product performance is enhanced or reduced. Furthermore, by examining the strategies that new ventures adopt to serve BOP consumers, we complement the literature that examines BOP business models (Kolk et al., 2014). Finally, our study extends the BOP literature by examining the role of BOP orientation in driving new product performance of new ventures in a sub-Saharan African country—Ghana. Such emerging countries generally have weaker institutional environments compared to advanced countries (e.g., USA, UK) and the challenges that new and small firms face is compounded in such environments (Ahsan et al., 2021). For instance, the lack of human capital and institutional support in such contexts could impede strategy implementation, and lead to unfavorable outcomes.

## 2. Theoretical background and hypotheses

### 2.1. BOP orientation

For over two decades scholars have examined various aspects of the BOP market (Dembek et al., 2020; Kolk et al., 2014; Srivastava et al., 2020). For example, previous research has highlighted the need to build new capabilities and develop innovative business models to successfully operate in BOP markets (see Table 1 for summary of key BOP empirical studies). As the needs of BOP consumers differ significantly from those of traditional consumers, firms adopt unique strategies to serve BOP consumers (Kolk et al., 2014; London and Hart, 2004; Prahalad, 2009). This requires firms to adopt a BOP orientation, which is a unique capability that guides firms in their strategic engagement and development of products for the BOP market (Zhu et al., 2019). A BOP orientation involves understanding the needs of the BOP market and developing affordable products that deliver value to BOP consumers. As BOP consumers have low income, firms serving this market need to adopt strategies that lower the cost of product development and satisfy the unique needs of these consumers. Researchers suggest that by imitating the actions of competitors, firms can minimize mistakes, lower the cost of product development, and deliver value to the target market segment (Lee and Tang, 2018; Shenkar, 2010a, 2010b).

While a firm's BOP orientation is considered a firm-level capability and it could enhance firm performance (Zhu et al., 2019), the success of products is also dependent on industry factors, including those that

<sup>1</sup> Table 1 provides an overview of some previous empirical studies on the base of the pyramid.

**Table 1**  
Summary of some previous empirical studies on base of the pyramid.

Author (s)/year	Independent variable(s)	Dependent variable (s)	Moderating variable	Empirical setting	Key findings
Zhu et al. (2019)	BOP orientation	Firm performance	Government support, legal inefficiency, competitive intensity, technological turbulence	China	<ul style="list-style-type: none"> <li>- BOP orientation positively relates to firm performance.</li> <li>- The effect of BOP orientation on firm performance is mediated by bricolage innovation.</li> <li>- The impact of BOP orientation on firm performance is strengthened when competitive intensity and government support are greater.</li> <li>- The impact of BOP orientation on firm performance is weakened when legal inefficiency is high but technological uncertainty has no moderating impact on this relationship.</li> </ul>
Hall et al. (2014)	Qualitative	Qualitative	–	Brazil	<ul style="list-style-type: none"> <li>- Tourism entrepreneurship could increase the BOP market with opportunities.</li> <li>- Tourism entrepreneurship can cause wider social problems.</li> <li>- Government policies that address economic and social views can foster more productive entrepreneurial outcomes.</li> </ul>
Vassallo et al. (2019)	Development levels	- Hybrid organization form - Size of the financial inclusion sector	BOP market	India	<ul style="list-style-type: none"> <li>- Quasi-profit hybrids have the tendency to become more prevalent and achieve greater usage in BOP markets overall.</li> <li>- Not-for-profit hybrids are more prevalent and achieve greater usage in markets with lower development levels.</li> <li>- Profit-making hybrids tend to become more prevalent and achieve greater usage in markets with lower social diversity when compared with other hybrid forms.</li> </ul>
Schuster and Holtbrügge (2014)	- Cooperation with stakeholders including civil society, business and governmental partners	Responsiveness to: - customer needs -market conditions -the institutional environment	–	BOP markets	<ul style="list-style-type: none"> <li>- Firms rely on civil society organizations to capture customer needs.</li> <li>- Business sector partners are useful in responding to restrictive market conditions.</li> <li>- Institutional partners are critical when firms aim to respond to the regulatory environment.</li> </ul>
Prahalad (2012)	BOP	Radical innovation	–	India	<ul style="list-style-type: none"> <li>- External challenges are a source of radical innovations in BOP markets.</li> <li>- Managers can focus on creating awareness, access, affordability, and availability for an environment innovation.</li> <li>- Global firms are participating in the BOP market by innovating.</li> </ul>
Schuster and Holtbrügge (2014)	Environmental constraints of BOP markets	Firm performance	–	Firms operating in BOP markets	<ul style="list-style-type: none"> <li>- Firms integrate local actors to cocreate products.</li> <li>- Firms cooperate with stakeholders to reduce dependency.</li> <li>- Partnerships with nontraditional and fringe stakeholders, and local capacity building, are positively related to firm performance.</li> </ul>
Getnet, O’Cass, Ahmadi, and Siahtiri (2019)	BOP marketing capability	Customer value	- Ties with civil society - Ties with government	Ethiopia	<ul style="list-style-type: none"> <li>- The effect of bricolage on innovation is curvilinear.</li> <li>- The curvilinear relationship is weakened when social ties with government officials and civil society organizations are greater.</li> </ul>
Adomako et al. (2021)	Proactive environmental strategy	Firm performance	- BOP orientation - Imitation orientation	Ghana	The impact of proactive environmental strategy on firm performance is moderated by BOP orientation and imitation orientation.
Ansari et al. (2012)	Conceptual	Conceptual	–	–	<ul style="list-style-type: none"> <li>- BOP firms fail to clarify their social welfare contributions to the population.</li> <li>- Without the ability to pursue new opportunities, social welfare cannot be improved.</li> <li>- An enabling context of knowledge transfer is critical for firms to build capabilities among the BOP.</li> <li>- Knowledge and capability transfer are dependent on the social context, which generates social capital to facilitate capability building in the BOP.</li> </ul>
Singh et al. (2015)	Qualitative	Qualitative	–	India	<ul style="list-style-type: none"> <li>- Market development at the BOP can be improved by making the BOP market less risky, integrating CSR initiative as a pilot project, integrating BOP communities into the supply chain strategy of the firm, and adding government interventions to help scale up.</li> </ul>

might be compounded by the institutional environment (Peng et al., 2008). For instance, competitive intensity increases the actions and reactions of firms in an industry. An increase in the level of competition intensity could render firm strategies obsolete (Deshpandé et al., 2012) if the firms fail to revise their strategic orientations and develop unique strategies (Su et al., 2016). In a highly competitive context, it is critical for the firm to distinguish itself from its competitors to capture the required market share and avoid head-on competition (Porter, 1985). In doing so, the firm is able to meet the expectations of consumers as well as build and sustain its competitive advantage (Adner and Zemsky, 2006; Boter and Holmquist, 1996). However, poor institutional environments could adversely affect the firms' ability to achieve superior performance, as such environments give rise to dysfunctional competition that could affect the effectiveness of a firm's strategies (Cai et al., 2017; Du et al., 2016). Insights from institutional theory (Peng et al., 2009; Peng et al., 2008) suggest that dysfunctional competition emerges out of a lack of effective legal mechanisms in developing economies. The legal inefficiency in poor institutional environments provides weak protection to firms when other firms behave in a manner that can be construed as "opportunistic, unfair, or even unlawful" (Li and Atuahene-Gima, 2001: 1125). Building on the above arguments, we suggest that the relationship between firms' imitation orientation and new product performance is likely contingent on competitive intensity and dysfunctional competition (Cai et al., 2017; Giachetti and Dagnino, 2014; Zhu et al., 2019).

These arguments are presented in our conceptual model (Fig. 1).

## 2.2. BOP orientation and imitation orientation

The unique characteristics of the BOP market have led to the development of new capabilities, business models, and strategies to better serve the needs of this market (Dembek et al., 2020; Kolk et al., 2014; Srivastava et al., 2020). One key capability highlighted in recent literature is BOP orientation, which is described as a firm capability developed "to serve the needs of BOP consumers based on a thorough understanding of their unique characteristics" (Zhu et al., 2019: 4). BOP orientation emphasizes the importance of gathering and utilizing information on BOP consumers to develop products that meet the needs of BOP consumers. This is consistent with the BOP literature, which suggests that firms can improve the living standards of individuals at the BOP by harnessing their resources to design products specifically for BOP consumers (Kolk et al., 2014; Prahalad, 2006, 2009, 2012).

While it is noteworthy to develop products for BOP consumers who have been significantly underserved, firms could incur high cost to develop new products specifically for BOP consumers. Before firms can develop and offer a new product to consumers, firms generally need to undertake significant research to identify product-market opportunities, and they incur high R&D costs to develop the new product (Song et al., 1996). As BOP-oriented firms have a deep understanding of the BOP consumers and are focused on satisfying their needs, they are likely motivated to make their products affordable, as this factor is important for BOP consumers (Agnihotri, 2017; Prahalad, 2012). To minimize new product development costs, BOP-oriented firms will likely rely on existing market knowledge and mimic the strategies of other similar firms to develop products that deliver value to the target market (Lee and Tang, 2018; Shenkar, 2010a, 2010b). Imitating the strategies of other firms in the industry would allow BOP-oriented firms to refine existing products to fit the needs of specific consumers and avoid the high costs associated with pioneering a new product (Liao, 2020). Imitation orientation can also help BOP-oriented firms to learn from the successes and failures of other firms and avoid costly mistakes. For instance, firms can learn which product markets to enter and how to best serve their target market by mimicking the strategies of other firms in the marketplace. Imitating the strategies and products of other similar firms could help in improving the product and lowering the cost compared to the original product (Schnaars, 1994), thereby delivering

better value to BOP consumers. This strategy is especially prudent for new ventures as they have limited resources to engage in costly and risky experimentations typically associated with new product development (Lee et al., 1999; Owens, 2007). Therefore, we suggest that new ventures with BOP orientation are more likely to adopt an imitation orientation, as this allows them to develop and deliver products that are appealing to consumers who earn less than \$2 per day. Accordingly, we propose the following hypothesis:

**H1.** BOP orientation is positively associated with imitation orientation.

## 2.3. BOP orientation, imitation orientation, and new product performance

Recent findings indicate that BOP orientation is a key contributor to firm performance (Zhu et al., 2019). BOP orientation enables firms to better understand the needs of BOP consumers and develop products that best fit this market segment. Although researchers have highlighted the business model and strategy innovations that create value for BOP consumers (Dembek et al., 2020; Kolk et al., 2014; Srivastava et al., 2020), the strategy of imitating other firms' approaches to serve the needs of BOP consumers has received relatively less attention. Imitation orientation is a firm-level learning capability connected to imitation activities such as learning from rivals' approaches (Lee and Tang, 2018). As previously noted, due to resource scarcity, firms seeking to better capture the value in this segment are likely to innovate in a cost-effective manner given that prices and affordability are vital to consumers in this segment (Agnihotri, 2017; Prahalad, 2012). Therefore, we suggest that imitation orientation is a viable strategy that BOP-oriented new ventures can use to minimize the cost associated with developing a new product and make the product affordable and appealing to BOP consumers.

BOP-oriented new ventures adopting an imitation strategy can learn from other firms in the industry to refine existing products and lower development costs (Liao, 2020; Zhu et al., 2019). By learning from other firms' strategies, imitators can develop new products frugally to reduce production costs (Wu et al., 2019) and be better able to compete on cost—a key factor for BOP customers. By offering cheaper and more refined products compared to existing products, new ventures can win BOP consumers with their price and value advantage (Adomako et al., 2021). Indeed, evidence suggests that imitation enables firms to mimic rivals' products, introduce them in a speedy manner (Shenkar, 2010a, 2010b), and learn from their new product development and design errors (Lieberman and Asaba, 2006). Moreover, it enables firms targeting BOP consumers to reduce or eliminate their R&D budget (Ofek and Turut, 2008). As affordability is a key factor for BOP consumers (Agnihotri, 2017; Prahalad, 2012), BOP-oriented new ventures adopting an imitation strategy will likely pass on the cost savings to the consumers due to their acute awareness of BOP consumers financial constraints (Zhu et al., 2019). This would make their products more appealing to BOP consumers and could help BOP-oriented new ventures attain a larger market share. As firms serving the BOP market operate on low profit margins (Kolk et al., 2014), attaining a larger market share can help them attain advantages from economies of scale (Hill, 1988), and this can further enhance new product performance. Thus, an imitation orientation is likely to offer a pathway for developing new products that offer better value to BOP consumers, and this will likely enhance product performance. Accordingly, we suggest that:

**H2.** Imitation orientation mediates the relationship between BOP orientation and new product performance.

## 2.4. Moderating role of competitive intensity

In addition to the above hypotheses, we argue that competitive intensity moderates the relationship between imitation orientation and new product performance. Competitive intensity reflects a condition of

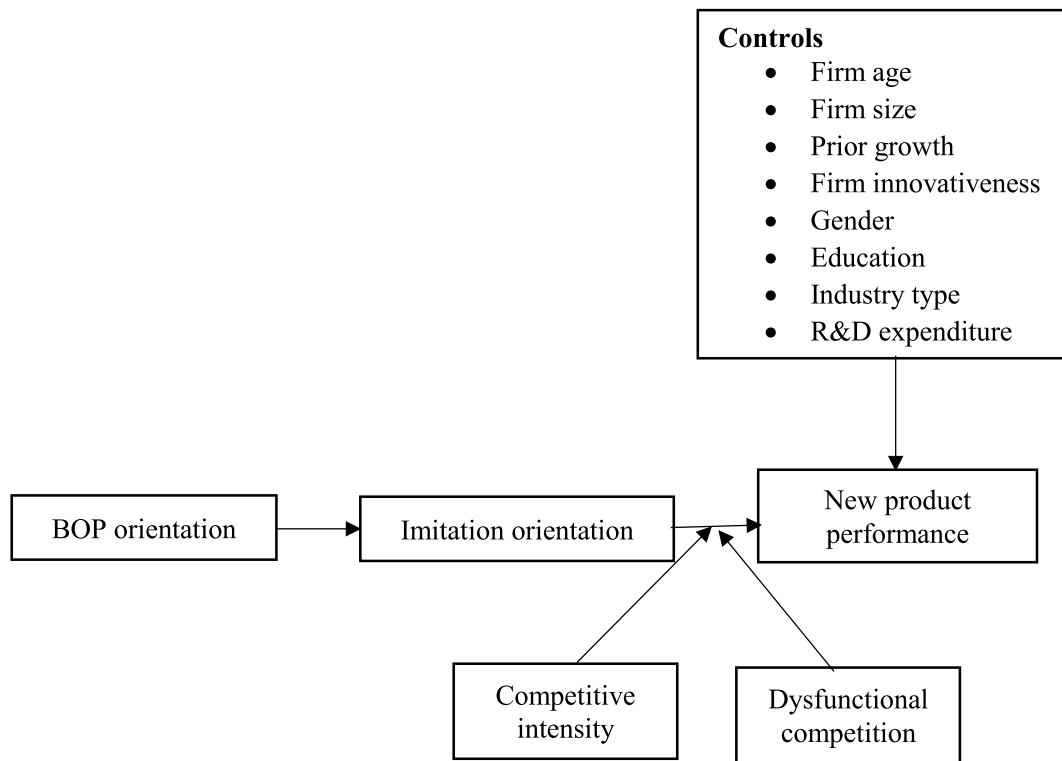


Fig. 1. Conceptual model of the study.

rivalry among firms in the same industry, in which the firms' behavior largely reflects the actions and reactions of industry players, ushering in conditions of uncertainty and unpredictability (Auh and Menguc, 2005). Simply put, competitive intensity is the degree of competition that a firm faces within an industry (Kohli and Jaworski, 1990; Zhou, 2006). We argue that competitive intensity moderates the relationship between imitation orientation and new product performance, since the value and performance implications of imitation orientation are likely to be reduced with increasing competition. In such conditions, it is critical for firms to create new knowledge to offset the competition that comes with a high competitive intensity (Bouncken et al., 2020). Indeed, Giachetti and Dagnino (2014) suggest that while a firm could mimic other firms in the industry and be successful in low-competition industries, such a strategy would be less effective in a high-competition industry. In such a situation, firms might need to differentiate their offerings to enhance their performance. That is, under conditions of greater competition, it is less likely that greater imitation orientation would be positively related to new product performance.

New ventures that adopt an imitation strategy and develop products similar to other firms in conditions of high competitive intensity will likely have lower product performance because of the abundance of similar products available to customers. Increasing competition among undifferentiated products can lead to price competition and lower firms' market share, making it difficult for them to attain economies-of-scale advantages (Hill, 1988). That is, BOP consumers would be split among the various firms offering a similar product at the same price, thus limiting the market share of each firm. In this case, the notion of an imitation orientation to defend their competitive market positions is defeated (Lieberman and Asaba, 2006). Indeed, researchers suggest that in a competitive environment firms must develop learning capabilities and an entrepreneurial orientation to differentiate their products and enhance performance (Hughes et al., 2007; O'Reilly and Tushman, 2008). This is consistent with the business model innovations that firms develop to attain a competitive advantage in BOP markets (Kolk et al., 2014). Thus, we reason that when competitive intensity is high, the

effect of imitation orientation on new product performance would be low.

**H3a.** Competitive intensity moderates the strength of the relationship between imitation orientation and new product performance, such that the relationship is stronger under a low level of competitive intensity.

### 2.5. Moderating role of dysfunctional competition

The inability of the legal framework in weak institutional environments to protect the interests of firms can result in dysfunctional competition (Cai et al., 2017; Li and Atuahene-Gima, 2001; Luo and Peng, 1999) and limit the strategic options available to firms (Gao et al., 2017; Meyer and Peng, 2016). Dysfunctional competition reflects "the extent to which the competitive behavior of firms in a market is opportunistic, unfair or even unlawful" (Li and Atuahene-Gima, 2001: 1125). In such environments, it would not be prudent for firms to undertake expensive R&D activities to develop unique products, as they could easily be imitated by other firms that engage in unfair and illegal practices. Moreover, the inefficient legal mechanisms in such environments provide little protection to the firm when competitors adopt unlawful practices to copy the firm's product. The high cost associated with pursuing an innovation strategy to develop unique products would require the products to have a high level of sales and profits to be deemed successful. However, dysfunctional competition could reduce the sales and profits of the new product by introducing similar products at lower cost to the market, thereby limiting the ability of the firm to capture value. In other words, firms will not be able to dominate the market through their unique products (that is, get a large share of the market) due to unfair and illegal competitive behavior (e.g., copycat products).

In such conditions, it would be better for BOP-oriented new ventures to adopt an imitation orientation. Their acute understanding of BOP consumers could enable BOP-oriented firms to appropriately mimic the strategy of pioneers to refine and lower the cost of existing products (Liao, 2020). By offering a similar product at a lower price, new ventures

could limit the economic incentive of competitors to engage in unfair and illegal practices. That is, new ventures adopting an imitation orientation would be able to mitigate the effect of dysfunctional competition by reducing the profits that the competitors can accrue by copying their products. Thus, we suggest that, in conditions of high dysfunctional competition, new ventures will be able to attain higher new product performance by mimicking other firms to develop new products. Accordingly, we propose that:

**H3b.** Dysfunctional competition moderates the strength of the relationship between imitation orientation and new product performance, such that the relationship is stronger under high dysfunctional competition.

### 3. Method

#### 3.1. Study setting: Ghana

To test the hypotheses of the study, data were collected from chief executive officers (CEOs) and chief finance officers/accountants of manufacturing companies in Ghana. The questionnaire was designed in English, as it is the official language in Ghana. We focused on the Ghanaian manufacturing sector because this has been a major focus of the Ghanaian government to diversify its economy (World Bank, 2019). Ghana has championed contemporary market and industrial reforms in terms of privatization, deregulation, and liberalization to ease regulatory and political restrictions on businesses (Amankwah-Amoah et al., 2018; Amankwah-Amoah et al., 2018). Consequently, these reforms have helped to cultivate an atmosphere for the development of the manufacturing sector. Although Ghana's economy has attained many successes in recent years, it exhibits the characteristics of an emerging economy such as a weak institutional environment, weak legal enforcement system, poor financial credit availability, and limited market intermediaries such as venture capitalists (Ahsan et al., 2021). Estimates from the Ghana Statistical Service indicate that about 80% of the Ghanaian population works in the informal sector (Koto, 2015), and this can be considered a BOP sector of the economy (London et al., 2014). Thus, the BOP sector is an important source of household income for Ghanaians who cannot find employment in the formal economy (Decker and Obeng Dankwah, 2022). Furthermore, although the economic conditions in Ghana have improved over the years, a significant number of Ghanaians still live under conditions of poverty.<sup>2</sup>

#### 3.2. Sample and data collection

The sample consisted of 1100 new ventures derived from the Ghana Revenue Authority database. The Ghana Revenue Authority is a Ghanaian government agency responsible for revenue collection. The firms in our sample are primarily business-to-consumer ventures that sell their products to local consumers (that is, they are nonexporting ventures). The questionnaires were designed such that CEOs provided information on BOP orientation, imitation orientation, competitive intensity, dysfunctional competition, and the control variables in wave 1, while the information on new product performance was provided by chief finance officers/accountants in wave 2. Due to the challenges of gathering data in such a developing country (Hoskisson et al., 2000), each wave/stage of data collection took approximately two months. To elicit participation in the study, letters were sent to the CEOs of each of the 1100 new ventures. The letter explained the purpose of the study and

<sup>2</sup> <https://www.macrotrends.net/countries/GHA/ghana/poverty-rate>; <https://www.statista.com/statistics/1222084/international-poverty-rate-in-ghana/>; <https://www.gh.undp.org/content/ghana/en/home/presscenter/pressreleases/2020/new-data-looking-at-poverty-in-different-dimensions-in-ghana-sho.html>.

asked for their participation in the study. The letter requested that the respondents identify themselves only by their position in the company rather than by name. The data were collected by going door to door with a questionnaire in person. In the first wave, 567 responses were received. After discounting missing values, we obtained 561 useable responses, representing a response rate of 51% in wave 1. To gain confidence in the data, we investigated informant competency by capturing issues such as knowledge about firm resources, information accuracy, and confidence in providing answers to the survey questions (Morgan et al., 2004). We obtained a mean score of 5.75 (S.D. = 0.79) for knowledge competency, 5.24 (S.D. = 0.68) for response accuracy, and 4.10 (S.D. = 1.31) for confidence in responding to questions.

In wave 2, finance managers/chief accountants of the 561 ventures were contacted in person to capture new product performance measures. We used this approach due to common method variance (CMV) issues associated with cross-sectional design and to attenuate the respondents' ability and motivation to use responses to prior questions for subsequent responses (Chang et al., 2010; Podsakoff et al., 2003). Out of the 561 ventures, 513 responded to the performance questionnaire. Subsequently, we dropped eight ventures after the wave 2 because a further verification found that the CEOs of these firms were also the finance directors, or some values were missing. Hence, 505 useable responses across wave 1 and wave 2 were used for the analysis. This represents an effective response rate of 45.90% (i.e., [505/1100] x 100).

On average the firms employed five full-time employees, had been in existence for seven years, and had an average annual turnover of US \$641,930. The average R&D expenditure as a percentage of total annual sales was 8%. The sampled firms are growth oriented as they reported a high average annual sales growth rate of 11.13% and profit growth of 8.69%. Specific manufacturing industries the firms represented are food, beverage, and tobacco products (8%); textile, leather, clothing, and footwear (6%); wood and paper products (10%); printing (11%); petroleum, chemical, polymer, and rubber products (23%); nonmetallic mineral products (25%); metal products (11%); transport machinery and equipment (4%); and furniture and other manufacturing (2%).

#### 3.3. Measures

In line with the literature, all the multi-item measures were captured using established measures on a seven-point Likert scale.

**BOP orientation.** We measured BOP orientation with six items from Zhu et al. (2019). The respondents were asked to respond in a way that reflected their firms' orchestrated efforts to develop a better understanding of the BOP market features, characteristics, and needs of its consumers, and products/services that can potentially fulfill the needs of the customers.

**Imitation orientation.** Imitating other firms allows the focal firm to understand and gain insights from pioneering firms in the industry. By learning from others, firms are able to refine existing products and reduce the cost of production (Wu et al., 2019). In line with Lee and Tang (2018), we conceptualized imitation orientation capability as the extent to which a firm mimics the actions of competitors.

**Competitive intensity.** We measured competitive intensity with four items from Jaworski and Kohli (1993). This measure is indicative of the perceived level of competition in an industry.

**Dysfunctional competition.** We measured dysfunctional competition (also referred to as legal inefficiency) by using three items from Li and Atuahene-Gima (2001). These items measure the degree of competitive behaviors that are opportunistic, unfair, or even unlawful practices over the last three years.

**New product performance.** Previous studies have often used subjective performance as key new product performance indicators (Atuahene-Gima et al., 2005). Similarly, we use subjective performance data because it is difficult to collect objective financial information from new ventures, especially in developing countries (Hoskisson et al., 2000; Malik and Kotabe, 2009). In addition, some researchers have argued that

small firms' financial data are often unreliable and subject to managerial manipulation for tax avoidance (Dess and Robinson, 1984). Thus, we measured new product performance with five items by asking finance managers/chief accountants to evaluate their companies' imitated product revenues, growth in revenues from new imitated products, profitability of new imitated products, growth in profitability of new imitated products, and growth in sales of new imitated products. These evaluations were compared with the company's business objectives on imitated products. Each item was measured on a seven-point scale with anchors (1 = below average to 7 = above average).

**Control variables.** Several control variables were added to account for their influence on our research model (Atuahene-Gima et al., 2005). These were firm age, firm size, prior growth, firm innovativeness, gender, industry type, education, and R&D expenditure. To measure the firm size, we used the total number of full-time employees, whereas for firm age we utilized the number of years since the firm was established. The prior growth was assessed by averaging revenue and the employment growth rate for three years before the survey data collection, and these were standardized and summed (Baum and Locke, 2004). Given that firm innovativeness influences new product performance in developing economies (Story et al., 2015), we controlled for this variable. Firm innovativeness was measured with a three-item scale developed by Miller (1983) and Covin and Slevin (1989) ("1" = "strongly disagree" and "7" = "strongly agree"). The firm innovativeness measure taps CEOs' assessments of the firm's level of innovation activity relative to competitors.

We used nine manufacturing industry qualifications as control variables (Karami and Tang, 2019): (1) food, beverage, and tobacco products; (2) textile, leather, clothing, and footwear; (3) wood and paper products; (4) printing; (5) petroleum, chemical, polymer, and rubber products; (6) nonmetallic mineral products; (7) metal products; (8) transport machinery and equipment; and (9) furniture and other manufacturing. To meet this stated objective, we then categorized these groupings into high- or low-technology industries based on R&D expenditure scores and the percentage of knowledge workers in each industry (Karami and Tang, 2019). These classifications were applied because firms operating in high-technology industries are more likely to perform better than firms in low-technology industries (Covin et al., 1990; Thornhill, 2006). Petroleum, chemical, polymer, and rubber products; nonmetallic mineral products; and metal products industries were classified as "high-technology industry," and this was coded as "0". The rest of the industries were considered as "low-technology industry," and this was coded as "1". Gender was coded as "0" = male and "1" = female. CEO/founder education was measured by asking the respondents to record their highest educational attainment. This was coded as 1 = high school, 2 = bachelor's degree, 3 = master's degree, or 4 = doctoral degree. Finally, we controlled R&D investments by taking a percentage of total sales between 2016 and 2019. This approach to measuring R&D expenditure is well established in the innovation literature (e.g., Adomako et al., 2021; Sciascia et al., 2015).

## 4. Analyses

### 4.1. Common method variance, validity, and reliability tests

Although data were collected from multiple sources that effectively attenuate potential CMV, additional tests were performed. First, the test recommended by Lindell and Whitney (2001) was used by choosing a marker variable that is not conceptually related to any of the model variables. Accordingly, we used "I am always optimistic about my future" as a marker variable. This item measures optimism. The correlation between the marker variable item and new product performance ( $r = -0.04$ ;  $p > .10$ ) was nonsignificant. Additionally, correlations between the marker variable item and constructs in the research model ranged from  $-0.01$  to  $0.04$ . This indicates that CMV does not substantially influence the relationships between the constructs.

Second, we followed Cote and Buckley (1987) and estimated three competing models: method, trait, and method–method models (Table 2). Under the method model (Model 1), we allowed all the indicators to load on a single latent factor. Model 2 involved the estimation of a trait-only model. In this model, we allowed each indicator to load on its respective latent factor. Finally, in Model 3 we combined the method and trait models in one model. In this model, we established a single factor to link the indicators in the second model. Next, we compared all three models to establish whether CMV influenced our data. The results show that the second model and third model performed better than the first model. Moreover, the third model was not materially superior to the second model. Overall, we are confident in concluding that CMV does not substantially influence the findings reported in this study.

The reliability and validity of the constructs were assessed in confirmatory factor analysis (CFA) using LISREL 8.71. The coefficient alphas and composite reliability for the first order constructs are reported in Appendix 1. Discriminant validity of the constructs was established; the average variance extracted (AVE) for each construct was larger than the shared variances (i.e., squared correlations) of each pair of constructs (Fornell and Larcker, 1981). In addition, various models, ranging from seven factors to one factor (seven factors combined to one variable) were performed. Table 3 reports the fit indices for the CFA models. The results of the CFA show that the full seven-factor model is substantially better than the one-factor model (Thompson, 2004).

### 4.2. Empirical results

The descriptive statistics and correlations of the key variables are presented in Table 4. We also assessed normality using a Kolmogorov–Smirnov test (Massey, 1951). The result of our normality test supports the assumption of univariate normality. In addition, we used the White test (White, 1980) to show that our data do not suffer from heteroskedasticity. Before performing the regression, all the variables involved in the interaction were mean centered in order to prevent the potential multicollinearity associated with testing moderating hypotheses (Aiken and West, 1991). The largest variance inflation factor (VIF) was 3.12, which is below the suggested threshold value of 10 (Neter et al., 1996), suggesting that multicollinearity is not a major concern in our data. Hierarchical regression was used to test the hypotheses.

Table 5 presents the regression results. Imitation orientation is the dependent variable in Models 1–3. Model 1 tests the control variables, and the results show that prior growth ( $\beta = 0.14$ ,  $p < .05$ ) and firm innovativeness ( $\beta = -.04$ ,  $p > .10$ ) have no significant effect on imitation orientation. In Model 2, we added BOP orientation, and it has a significant positive influence on imitation orientation ( $\beta = .20$ ,  $p < .01$ ). This finding provides support for Hypothesis 1. Two moderators (competitive intensity and dysfunctional competition) are added in Model 3, and the influence of BOP orientation on imitation orientation was still significant ( $\beta = .19$ ,  $p < .01$ ).

The dependent variable in Models 4–8 is new product performance. The results in Models 4–8 test the mediating hypothesis. Based on Baron and Kenny's (1986) approach, mediation is established when three major conditions are met: (1) the independent variable significantly predicts the dependent variable; (2) the independent variable significantly influences the mediation variable; and (3) the simultaneous inclusion of the independent and the mediating variables in the regression equation allows the mediating variable to account for a significant variation in the dependent variable, and the influence of the independent variable on the dependent variable is reduced or eliminated.

First, as discussed in Model 2, the relationship between BOP orientation and the mediating variable (imitation orientation) was positive and significant ( $\beta = .20$ ,  $p < .01$ ). Second, the results in Model 5 show that BOP orientation positively relates to new product performance ( $\beta = .14$ ,  $p < .05$ ). Third, the results in Model 7 show that the influence of BOP orientation on new product performance becomes nonsignificant



**Table 2**  
Common method variance nested models.

Model	$\chi^2$	Df	$\chi^2/df$	RMSEA	CFI	NNFI	GFI	AGFI	NFI	SRMSR
M1: Method	1021.09***	856	1.19	.17	.34	.34	.64	.24	.59	.13
M2: Trait	1179.32***	769	1.53	.04	.93	.91	.90	.95	.93	.07
M3: Trait-method	1208.18***	821	1.47	.06	.96	.95	.93	.94	.94	.06

Note: \*\*\* $p < .001$ ; RMSEA = root mean square error of approximation; CFI = comparative fit index; NNFI = non-normed fit index; GFI = goodness of fit index; AGFI = parsimony goodness of fit index; NFI = normed fit index; SRMSR = standardized root mean-square error.

**Table 3**  
Results of confirmatory factor analysis.

	$\chi^2/df$	CFI	NNFI	RMSEA	SRMR
Recommended values	$\leq 3$	$\geq .9$	$\geq .9$	$\leq .08$	$\leq .08$
Full model CFA	1.4	.95	.95	.06	.07
One-factor model CFA	2.5	.60	.70	.011	.18

( $\beta = .03, p > .10$ ) when the independent and the mediating variables are introduced simultaneously in the regression equation. These results suggest that imitation orientation mediates BOP orientation and new product performance. Thus, Hypothesis 2 is supported.

Model 8 tests the moderating hypothesis. Accordingly, we added the

interaction terms between imitation orientation and competitive intensity (H3a) and dysfunctional competition (H3b). The interaction term between imitation orientation and competitive intensity is positive for new product performance ( $\beta = -.21, p < .01$ ). This supports Hypothesis 3a. In addition, the interaction term for dysfunctional competition and imitation orientation is positive for new product performance ( $\beta = 0.42, p < .01$ ), suggesting that dysfunctional competition positively moderates the relationship between imitation orientation and new product performance. Thus, Hypothesis 3b was supported. To facilitate interpretation of the interactions, we followed the procedure suggested by Cohen et al. (2003) and plotted the interactions at  $\pm 1$  S.D. Fig. 2 depicts the stronger negative relationship between imitation orientation and new product performance when competitive intensity is high (vs.

**Table 4**  
Descriptive statistics and correlations.

Variables	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12
1. Firm size	5.30	.98												
2. Firm age	6.84	1.30	-.04											
3. Prior venture growth	7.35	12.84	-.07	-.11										
4. Industry dummy	.59	.48	.03	-.03	-.06									
5. Gender	.85	.38	.00	.03	.00	.01								
6. Education	2.95	1.21	.01	.00	.06	.04	.02							
7. Firm innovativeness	3.12	1.63	.01	-.03	.12	.19**	.01	.13*						
8. R&D expenditure	0.08	2.39	.14*	.03	.11	-.05	-.02	.02	.14*					
9. BOP orientation	4.07	.68	.17*	-.07	.22**	.15*	.04	.04	.05	.11				
10. Imitation orientation	4.01	.60	-.09	-.13*	.15*	.09	.02	.07	-.05	-.12	.25**			
11. Competitive intensity	4.22	1.31	-.04	-.05	.05	.02	-.01	-.04	.19**	.15*	-.05	-.09		
12. Dysfunctional competition	5.15	1.09	-.10	-.09	.19**	.07	-.04	.02	.26**	.13*	.33**	.28**	.07	
13. New product performance	4.73	1.13	-.04	-.08	.14*	.04	.03	.03	.05	.20**	.14*	.19**	-.12	.07

N = 505; \* $p < 0.05$ ; \*\* $p < 0.01$  (2-tailed test); S.D. = Standard Deviation.

**Table 5**  
Regression results (N = 505).

Control variables	Models 1–3: Imitation orientation			Models 4–8: New product performance				
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Firm size (employees)	-.08 <sup>a</sup>	-.05	-.06	-.05	-.07 <sup>a</sup>	-.06	-.06	-.05
Firm age	-.09 <sup>a</sup>	-.06	-.05	-.05	-.10 <sup>a</sup>	-.07 <sup>a</sup>	-.06	-.06
Prior venture growth	.14**	.12 <sup>a</sup>	.11 <sup>a</sup>	.12 <sup>a</sup>	.11 <sup>a</sup>	.10 <sup>a</sup>	.10 <sup>a</sup>	.09 <sup>a</sup>
Industry	.04	.05	.04	.04	.04	.04	.03	.03
Gender	.05	.04	.05	.03	.03	.03	.02	.03
Education	.04	.07 <sup>a</sup>	.05	.05	.05	.06	.04	.05
Firm innovativeness	-.04	-.03	-.03	.05	.04	.04	.04	.03
R&D expenditure	-.10 <sup>a</sup>	-.09 <sup>a</sup>	-.08 <sup>a</sup>	-.08 <sup>a</sup>	.14**	.14**	.13**	.12 <sup>a</sup>
<b>Independent variable</b>								
BOP orientation		.20***	.19***		.14**	.13**	.03	.11 <sup>a</sup>
<b>Moderators</b>								
Competitive intensity (CI)			-.11 <sup>a</sup>			-.11 <sup>a</sup>	-.12 <sup>a</sup>	-.10 <sup>a</sup>
Dysfunctional competition (DC)			.20***			.08 <sup>a</sup>	.08 <sup>a</sup>	.09 <sup>a</sup>
<b>Mediator</b>								
Imitation orientation (IO)							.25***	.23***
IO <sup>a</sup> CI								-.21***
IO <sup>a</sup> DC								.42***
<b>Model fit statistics</b>								
F-value	2.65**	4.69***	5.79***	1.98 <sup>a</sup>	2.82**	2.87**	5.58***	8.39***
R <sup>2</sup>	.13	.15	.19	.12	.16	.19	.22	.28
$\Delta R^2$		.02	.04	–	.04	.03	.03	.06
Largest VIF	1.44	2.63	1.22	1.73	1.89	2.68	3.12	3.05

<sup>a</sup>  $p < .10$ ; \*\* $p < .05$ ; \*\*\* $p < .01$ ; standardized coefficients are shown.

low competitive intensity). This further supports Hypothesis 3a. Further, Fig. 3 shows the stronger positive relationship between imitation orientation and new product performance in highly dysfunctional competitive environments (vs. lower dysfunctional competitive environments).

Additionally, the approach suggested by Hayes and Preacher (2010) was used to test the significance of the indirect effect. Accordingly, the Sobel test and bootstrapping (Table 6) methods were applied. We found a significant indirect effect (Sobel  $z = 2.01$ ,  $p = .05$ ). The result of the Sobel test was confirmed utilizing the bootstrapping method. This was done by performing a 95%-corrected confidence interval (CI). We found that the bias-corrected CI was between 0.02 and 0.11, which did not include any zero values in the CI. Thus, we concluded that the hypothesized indirect effect was different from zero. This result provides support for H2.

To investigate further how the indirect effects are different with regard to the moderators (competitive intensity and dysfunctional competition), the bootstrapping approach was used. The indirect effect was quantified at low (-1S.D.), mean, and high (+1S.D.) levels of the moderators (Preacher et al., 2007). Specifically, we investigated the conditional indirect effect of BOP orientation (via imitation orientation) at values of the moderators using the PROCESS macro (cf. Preacher et al., 2007). The results of the indirect effects at values of competitive intensity and dysfunctional competition are presented in Table 7. In addition, Table 7 provides 95% confidence intervals for the indirect effects. As shown in Table 7, the indirect effect of BOP orientation on new product performance via imitation orientation was conditional on competitive intensity and dysfunctional competition. In addition, we found that the indirect effect was stronger (-0.05) and significant at a low level of competitive intensity (CI ranging from -0.03 to -0.15) but was weaker (0.00) and insignificant at a high level of competitive intensity (CI ranging from -0.02 to 0.07). This result provides support for H3a. In addition, using dysfunctional competition as moderator, we found that the indirect effect was not significant (-0.00) at low levels of dysfunctional competition (CI from -0.02 to 0.05) but was significant (0.06) at high levels of dysfunctional competition (CI from 0.04 to 0.15). Therefore, H3b was supported.

## 5. Discussion and implications

In this study, we contended that BOP orientation adopted by new ventures in an emerging country would have a significant influence on new product performance via imitation orientation. We also proposed two moderators (competitive intensity and dysfunctional competition) as crucial boundary conditions on the imitation orientation–new product performance relationship. The study employed data from 505 Ghanaian new ventures to test the hypothesized relationships and found empirical support. Specifically, we found that BOP orientation positively influences imitation orientation, and imitation orientation mediates the

relationship between BOP orientation and new product performance, suggesting that BOP orientation can enhance new product performance via imitation orientation. These observations are critical for the wider scholarly discourse on the role of businesses in poverty alleviation (Dembek et al., 2020). These findings indicate that for firms targeting BOP consumers, it is important to mimic rival firms in order to enhance new product performance. In contrast to “top-of-the-pyramid” consumers (London and Hart, 2004), BOP consumers have low income and are acutely price sensitive, which forces firms to compete on price rather than quality (Zhu et al., 2019).

The study further revealed that competitive intensity has a negative moderating effect on the relationship between imitation orientation and new product performance, and dysfunctional competition positively moderates the effects of imitation orientation on new product performance. This complements prior literature that has emphasized the effects of an industry’s competitive climate on firm outcomes (Liu and Atuahene-Gima, 2018; Tsai and Hsu, 2014). Additionally, by proactively targeting the BOP market, firms are better able to understand the requirements of BOP consumers as well as become part and parcel of inclusive development efforts that view the poor as current and future consumers. Such efforts also go a long way toward having social impact in terms of helping to alleviate poverty. Overall, our study has several implications for theory and practice, which we discuss in the sections that follow.

### 5.1. Implications for research

Our study provides an important theoretical implication for the BOP literature. In particular, because the BOP markets in developing and emerging countries are inherently becoming crucial to the global economy, researchers have called for studies to elucidate how new ventures could benefit from the opportunities in BOP markets (Mortazavi et al., 2020; Zhu et al., 2019). At the same time, scholars have called for a better understanding of how local ventures in developing/emerging economies can compete against their foreign counterparts in the BOP markets (Mortazavi et al., 2020; Prahalad, 2005). Our study is among the few to offer empirical evidence to explain the effects of BOP orientation on imitation orientation in developing and emerging countries. Our findings show that BOP orientation positively influences imitation orientation. The finding sheds light on new ventures’ capability development mechanisms (Liao, 2020; Luo et al., 2011), and this can drive imitation in BOP markets. For example, in developing/emerging countries where R&D capabilities and intellectual property protections are weak (Teubal, 1996), imitation orientation is considered a useful alternative to new product development (Malik and Kotabe, 2009). This approach helps firms to refine existing products and lower development costs (Liao, 2020).

In addition, our study advances the understanding of the mediating role of imitation orientation in the BOP orientation–new product

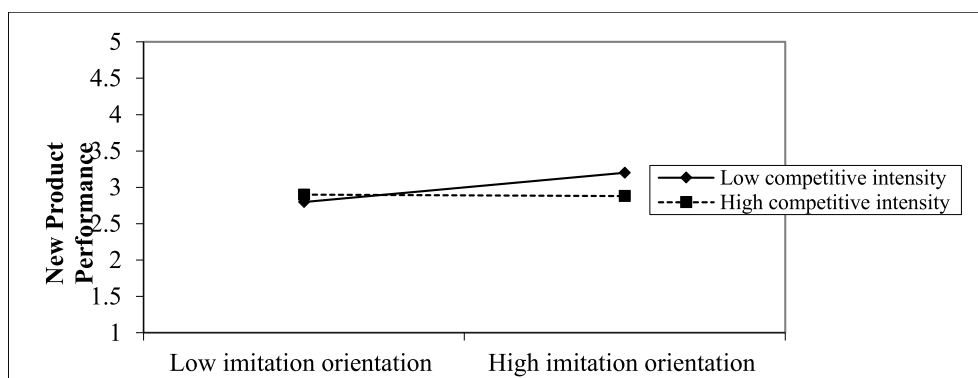


Fig. 2. Interaction on imitation orientation with competitive intensity on new product performance.

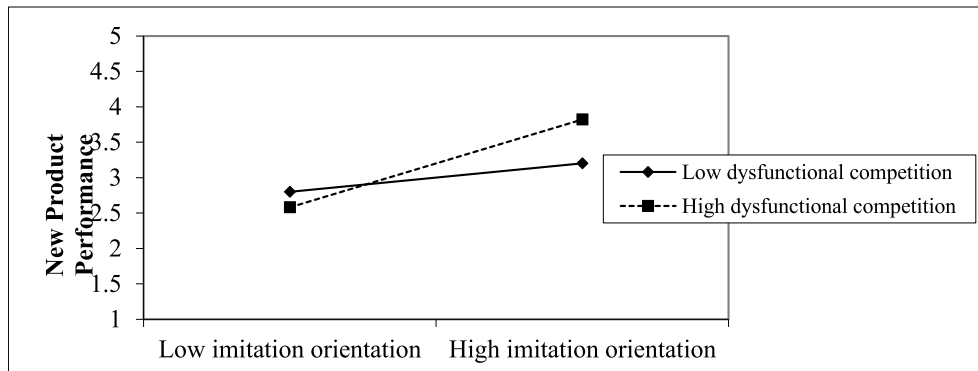


Fig. 3. Interaction of imitation orientation with dysfunctional competition on new product performance.

Table 6  
Indirect effect and significance using normal distribution.

	Value	SE	Z	P
Sobel	.04	.03	2.01	.05
Bootstrap results for indirect effect	Effect	SE	LL 95% CI	UL 95% CI
	.04	.03	.02	.11

N = 505; Bootstrap sample size = 10,000; \*p < .05; \*\*p < .01.

Table 7  
Findings of the moderated mediation for new product performance across levels of competitive intensity and dysfunctional competition.

Moderators	Level	Profitability	SE	LL 95% CI	UL 95% CI
		Conditional indirect effect			
Competitive intensity	Low (-1.06)	-.05	.05	-.04	-.15
	High (1.06)	.00	.02	-.02	.07
Dysfunctional competition	Low (-.96)	-.00	.03	-.02	.05
	High (.96)	.06	.03	.04	.15

N = 505; CI = confidence interval; LL = lower level; UL = upper level; 10,000 bootstrap sample size.

performance relationship (Ethiraj and Zhu, 2008; Malik and Kotabe, 2009; Wu et al., 2019; Zhou, 2006). In particular, the finding shows that imitation orientation mediates the relationship between BOP orientation and new product performance. For example, previous research shows that imitation orientation influences the performance of emerging-market firms (Malik and Kotabe, 2009). Also, past studies have revealed that imitation orientation relates to new product performance (Zhou, 2006) and productivity (Liao, 2020). By explaining the mechanism through which BOP orientation influences new product performance, we extend our understanding of the mediating role that imitation orientation plays in the relationship between BOP orientation and new product performance.

Moreover, by responding to calls to integrate resources/capabilities, industry, and institutional-based views (Peng et al., 2008), our study shows that the potency of imitation orientation is bounded not only by knowledge resources but also by institutional and industry conditions. By doing so, we extend our understanding of the boundary conditions of imitation orientation. Though recent studies have examined the effect of imitation orientation on firm outcomes such as performance (Lee and Tang, 2018) and innovation (Wu et al., 2019), the conditions under which imitation orientation translates into product success remains unexamined. Specifically, competitive intensity is the industry force that influences the performance outcome of imitation orientation. Increasing

competition generally motivates firms to innovate to differentiate from the competition (Aghion et al., 2001), as Bertrand competition will lower the new product performance. In such conditions, the market share is split among various competitors offering similar products at the same price (Bertrand, 1883), thereby limiting a firm’s ability to attain an advantage through economies of scale. Although it is likely that BOP-oriented firms would need to innovate to escape the adverse effects of competitive intensity, the characteristics of BOP consumers might constrain the type of innovations that firms pursue (Kolko et al., 2014). In particular, the affordability factor (Agnihotri, 2017) would limit the amount of capital the firms spend on product development to ensure that they can recoup their investments as well as keep the product affordable. In addition, dysfunctional competition serves as an institutional factor that affects the performance outcomes of imitation orientation. These findings extend our understanding of the moderating role of competitive intensity and dysfunctional competition in enhancing/attenuating the relationship between imitation orientation and new product performance. Dysfunctional competition lowers firms’ incentives to pursue an innovation strategy, as the weak institutional environments in emerging countries provide little protection for firms against competitors’ illegal and unfair behaviors. As firms generally have limited strategic options in such environments (Gao et al., 2017; Meyer and Peng, 2016), it might be prudent for them to follow an imitation strategy in such environments.

5.2. Implications for practice

In addition to our theoretical contributions, this study offers useful recommendations for managers in emerging market. The finding that BOP orientation positively relates to new product performance shows the importance of understanding BOP consumers to develop products that provide value to the target segment. Because the BOP market remains strategic to small firms, effectively serving this segment could enhance the firm’s competitive advantage. Additionally, the outcome concerning how dysfunctional competition facilitates and inhibits the relationship between imitation orientation and new product performance has crucial implications for new product development. The findings suggest that imitation orientation is likely to yield superior product performance in an emerging economy when the dysfunctional competition is greater. Accordingly, we recommend that managers and organizational leaders consider employing an imitation strategy when dysfunctional competition in the business environment is high. This is because, in a business environment characterized by dysfunctional competition, it would not be wise to engage in costly R&D activities to develop innovative products, as other firms could use unfair and unlawful practices to copy the products. In addition, the finding that competitive intensity negatively moderates the effect of imitation orientation on new product performance shows that SME managers need to not only sense and understand environmental factors but also to understand the limits of an imitation strategy in serving BOP consumers in

a highly competitive environment. This is critical given that each environment may have a different influence on the relationship between imitation orientation and new product performance.

Although the reward for successfully developing and bringing innovative products to market is substantial, being a pioneer in the BOP market is considered risky and costly. Therefore, managers of firms operating in the BOP market should be cautious and not invest heavily in R&D to introduce unique products to the BOP market. Instead, they are better off turning to an imitation strategy to learn from competitors' mistakes and improve product success (Lieberman and Asaba, 2006).

6. Limitations and direction for future research

As with any research study, our study is not without limitations. First, while our study provides useful insights on the relationships among BOP orientation, imitation orientation, and new product performance as well as the boundary conditions (competitive intensity and dysfunctional competition) in a developing market context, our study focuses on a single country, Ghana, which limits our ability to examine how various institutional and cultural factors impact the relationships. Our theoretical model precludes us from investigating potential ways in which institutional and cultural factors, which are considered important drivers of managerial discretion, may have accounted for differences in new ventures' BOP orientation, imitation orientation, and new product performance. For instance, to what extent do SME managers' cultural orientations such as uncertainty avoidance and long-term orientation (Hofstede, 2001) influence their firms' BOP and imitation orientations? Thus, it is recommended that future research explore the influence of various institutional and cultural factors on the BOP and imitation orientations of developing-country new ventures. Such investigations could help provide a more nuanced understanding of the key relationships that we examine in this study.

In addition, technological capability is considered an important driver of innovation (Kusunoki, 1997; Zhou and Wu, 2010). However, it is not clear how a firm's technological capability influences imitation orientation in the context of developing/emerging countries. Thus, we suggest that future research integrate a firm's technological capability (Schoenecker and Swanson, 2002; Yiu et al., 2007; Zhou and Wu, 2010) into their analytical modelling to further extend our understanding of how technological capability interrelates with other factors to explain variations in imitation orientation. Specifically, future studies could extend the literature by highlighting which new ventures' technological capability is more likely to moderate the imitation orientation–new product performance relationship. Furthermore, future research could extend our analysis to gain a deeper insight on when innovation orientation might be better than imitation orientation to develop new products for BOP consumers. For instance, firms could adopt less formal innovation practices (Barros, 2015) to deliver superior value to BOP consumers (Kolk et al., 2014; London, 2020).

Another limitation in our research model is that we did not

investigate how resource availability influences the adoption of BOP orientation and imitation orientation. Most new ventures are resource constrained, more so in developing-country contexts, and this could affect the strategies they implement. Future studies should seek to explain the effect of resource availability on BOP and imitation orientations in developing economies. Relatedly, we do not examine whether the firms in our sample target multiple market segments. For instance, for firms that do so, the BOP market segment might not be a priority for some of these firms. However, this is less likely to occur in our sample given the resource constraints new ventures in emerging markets face. That is, new ventures in emerging markets lack the resources to target multiple market segments. Indeed, Lee et al. (1999: 302) state that “given their resource limitations, new ventures should focus on select market niches.” Future research could extend our study by examining how the characteristics of entrepreneurs' and firms' affect strategic decisions (Adomako and Ahsan, 2022; Ahsan et al., 2022), including the target market segments and activities pursued.

Our study also has some limitations pertaining to methodology. Due to privacy concerns, small and privately-owned firms are often hesitant to release their financial information. As such, we used subjective measures to capture new product performance. In view of this, there is a potential that the perceptual measures of new product performance from individual finance managers could be biased. Future studies should consider using objective data to measure new product performance. Furthermore, we sought to gather data from both the CEOs and the finance managers of the new ventures by adopting a multi-informant design (i.e., BOP orientation, imitation orientation, and new product performance was collected from different informants), which strengthens our confidence in alleviating CMV and avoiding inflated correlations in our study. However, the cross-sectional nature of our study constrains us from making causal claims from the findings. This limitation can be addressed if future studies obtain multiple data from the same sample over time in a longitudinal design. Such a design will help to improve confidence in inferring causality among BOP orientation, imitation orientation, and new product performance.

7. Conclusions

In this study we examined the relationships among BOP orientation, imitation orientation, and new product performance, and the moderating effects of competitive intensity and dysfunctional competition on the relationship between imitation orientation and new product performance. We found that imitation orientation mediates the relationship between BOP orientation and new product performance. In addition, we found that the effect of imitation orientation on new product performance is strengthened when competitive intensity is low and when dysfunctional competition is high. We hope that the insights of our study motivate future researchers to further investigate the relationships among BOP orientation, firm strategies, and outcomes.

Appendix 1

Constructs, reliability, and validity

Constructs and Measurement	Loading (t-values)	Cronbach's $\alpha$	CR	AVE
<b>BOP orientation</b> (Zhu et al., 2019)		.91	.92	.67
In the past three years, our firm has endeavored to explore market opportunities in the BOP market such as develop new products and formulate business strategies to serve this market.	.79(1.00)			
In the past three years, our firm has invested in uncovering the BOP consumer characteristics.	.75(10.58)			
In the past three years, our firm has thoroughly considered the needs of BOP consumers in serving this segment.	.90(14.69)			
In the past three years, our firm has thoroughly considered BOP consumer product usage context in serving this segment.	.83(12.11)			

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(continued)

Constructs and Measurement	Loading (t-values)	Cronbach's $\alpha$	CR	AVE
In the past three years, our firm has thoroughly considered BOP consumer affordability in serving this segment.	.78(11.42)			
In the past three years, our firm has thoroughly considered BOP consumers' education level to understand product-related information in serving this segment.	.85(13.89)			
<b>Imitation orientation</b> (Lee and Tang, 2018)		.93	.94	.80
We frequently follow the strategic moves of our major competitors.	.80(1.00)			
We prefer to enter the market after our competitors.	.94(26.12)			
We emphasize the value of mimicking competitors.	.93(24.29)			
We consider ourselves a challenger rather than an innovator.	.92(23.11)			
<b>Dysfunctional competition</b> (Li and Atuahene-Gima, 2001)		.87	.88	.72
In the past three years, unlawful competitive practices, such as illegal copying of new products, have increased in our industry.	.86(1.00)			
In the past three years, counterfeiting of products and trademarks was commonly found in our industry.	.89(14.69)			
In the past three years, unfair competitive practices have increased in our industry.	.78(11.26)			
<b>Firm innovativeness</b> (Covin and Slevin, 1989; Miller, 1983)		.85	.86	.67
In our firm, we have a strong emphasis on R&D, technological leadership, and innovations.	.78(1.00)			
In our firm, changes in product or service lines have usually been quite dramatic to achieve competitive advantage.	.88(12.61)			
In this firm, one of the main goals is to launch many new lines of products/services in the next three years.	.80(10.73)			
<b>Competitive intensity</b> (Jaworski and Kohli, 1993)		.89	.91	.73
Price competition was a hallmark of our industry.	.78(1.00)			
Any action that a company took, others made a response swiftly.	.89(18.58)			
One heard of a new competitive move almost every day.	.84(12.60)			
Competition in our industry was cut-throat.	.91(20.29)			
<b>New product performance</b> (Atuahene-Gima, Slater, and Olson, 2005)		.89	.90	.64
Revenues from new products compared with business objectives.	.78(1.00)			
Growth in revenues from new products compared with business objectives.	.90(18.04)			
Profitability of new products compared with your business objectives.	.77(12.46)			
Growth in profitability of new products compared with business objectives.	.80(14.66)			
Growth in sales of new products compared with business objectives.	.76(11.76)			

CR = composite reliability; AVE = average variance extracted.

## References

- Adner, R., Zemsky, P., 2006. A demand-based perspective on sustainable competitive advantage. *Strat. Manag. J.* 27 (3), 215–239.
- Adomako, S., Ahsan, M., 2022. Entrepreneurial passion and SMEs' performance: moderating effects of financial resource availability and resource flexibility. *J. Bus. Res.* 144, 122–135.
- Adomako, S., Ning, E., Adu-Ameyaw, E., 2021. Proactive environmental strategy and firm performance at the bottom of the pyramid. *Bus. Strat. Environ.* 30 (1), 422–431.
- Aghion, P., Harris, C., Howitt, P., Vickers, J., 2001. Competition, imitation and growth with step-by-step innovation. *Rev. Econ. Stud.* 68 (3), 467–492.
- Agnihotri, A., 2017. Responsible innovation at the bottom of the pyramid. *J. Bus. Strat.* 38 (3), 40–47.
- Ahsan, M., Adomako, S., Donbesuur, F., Mole, K.F., 2022. Entrepreneurial passion and product innovation intensity in new ventures: mediating effects of exploration and exploitation activities. *Br. J. Manag.* <https://doi.org/10.1111/1467-8551.12627>.
- Ahsan, M., Adomako, S., Mole, K.F., 2021. Perceived institutional support and small venture performance: the mediating role of entrepreneurial persistence. *Int. Small Bus. J.* 39 (1), 18–39.
- Aiken, L.S., West, S.G., 1991. *Multiple Regression: Testing and Interpreting Interactions*. Sage, Newbury Park: CA.
- Amankwah-Amoah, J., Antwi-Agyei, I., Zhang, H., 2018. Integrating the dark side of competition into explanations of business failures: evidence from a developing economy. *Eur. Manag. Rev.* 15 (1), 97–109.
- Amankwah-Amoah, J., Debrah, Y.A., Nuertey, D., 2018. Institutional legitimacy, cross-border trade and institutional voids: insights from the cocoa industry in Ghana. *J. Rural Stud.* 58, 136–145.
- Ansari, S., Munir, K., Gregg, T., 2012. Impact at the 'bottom of the pyramid': the role of social capital in capability development and community empowerment. *J. Manag. Stud.* 49 (4), 813–842.
- Atuahene-Gima, K., Slater, S.F., Olson, E.M., 2005. The contingent value of responsive and proactive market orientations for new product program performance. *J. Prod. Innovat. Manag.* 22 (6), 464–482.
- Auh, S., Menguc, B., 2005. Balancing exploration and exploitation: the moderating role of competitive intensity. *J. Bus. Res.* 58 (12), 1652–1661.
- Baron, R.M., Kenny, D.A., 1986. The moderator–mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. *J. Pers. Soc. Psychol.* 51 (6), 1173–1182.
- Barros, H.M., 2015. Exploring the use of patents in a weak institutional environment: the effects of innovation partnerships, firm ownership, and new management practices. *Technovation* 45, 63–77.
- Baum, J.R., Locke, E.A., 2004. The relationship of entrepreneurial traits, skill, and motivation to subsequent venture growth. *J. Appl. Psychol.* 89 (4), 587.
- Bertrand, J., 1883. Review of 'Theorie Mathematique de la Richesse Sociale' and 'Recherches sur les Principes Mathematiques de la Theorie des Richesses'. *Journal de Savants* 67, 499–508.
- Boter, H., Holmquist, C., 1996. Industry characteristics and internationalization process in small firms. *J. Bus. Ventur.* 11, 471–487.
- Bouncken, R.B., Fredrich, V., Kraus, S., Ritala, P., 2020. Innovation alliances: balancing value creation dynamics, competitive intensity and market overlap. *J. Bus. Res.* 112, 240–247.
- Cai, L., Chen, B., Chen, J., Bruton, G.D., 2017. Dysfunctional competition & innovation strategy of new ventures as they mature. *J. Bus. Res.* 78, 111–118.
- Cavusgil, S.T., Ghauri, P.N., Akcal, A.A., 2012. *Doing Business in Emerging Markets*. Sage.
- Chang, S.-J., Witteloostuijn, A.V., Eden, L., 2010. From the editors: common method variance in international business research. *J. Int. Bus. Stud.* 41, 178–184.
- Cohen, J., Cohen, P., West, S.G., Aiken, L.S., 2003. In: *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences*, third ed. Lawrence Erlbaum, New Jersey.
- Cote, J.A., Buckley, M.R., 1987. Estimating trait, method, and error variance: generalizing across 70 construct validation studies. *J. Market. Res.* 24 (3), 315–318.
- Covin, J.G., Slevin, D.P., 1989. Strategic management of small firms in hostile and benign environments. *Strat. Manag. J.* 10 (1), 75–87.
- Covin, J.G., Slevin, D.P., Covin, T.J., 1990. Content and performance of growth-seeking strategies: a comparison of small firms in high-and low technology industries. *J. Bus. Ventur.* 5 (6), 391–412.
- Decker, S., Obeng Dankwah, G., 2022. Co-opting Business Models at the Base of the Pyramid (BOP): Microentrepreneurs and Multinational Enterprises in Ghana. *Business & Society*. <https://doi.org/10.1177/00076503221085935>.
- De Carolis, D.M., Yang, Y., Deeds, D.L., Nelling, E., 2009. Weathering the storm: the benefit of resources to high-technology ventures navigating adverse events. *Strateg. Entrep. J.* 3 (2), 147–160.
- Dembek, K., Sivasubramaniam, N., Chmielewski, D.A., 2020. A systematic review of the bottom/base of the pyramid literature: cumulative evidence and future directions. *J. Bus. Ethics* 165 (3), 365–382.
- Deshpandé, R., Grinstein, A., Ofek, E., 2012. Strategic orientations in a competitive context: the role of strategic orientation differentiation. *Market. Lett.* 23 (3), 629–643.
- Dess, G.G., Robinson Jr., R.B., 1984. Measuring organizational performance in the absence of objective measures: the case of the privately-held firm and conglomerate business unit. *Strat. Manag. J.* 5 (3), 265–273.
- Du, Y., Kim, P.H., Aldrich, H.E., 2016. Hybrid strategies, dysfunctional competition, and new venture performance in transition economies. *Manag. Organ. Rev.* 12 (3), 469–501.
- Duanmu, J.L., Bu, M., Pittman, R., 2018. Does market competition dampen environmental performance? Evidence from China. *Strat. Manag. J.* 39 (11), 3006–3030.
- Ethiraj, S.K., Zhu, D.H., 2008. Performance effects of imitative entry. *Strat. Manag. J.* 29 (8), 797–817.
- Fornell, C., Larcker, D.F., 1981. Evaluating structural equation models with unobservable variables and measurement error. *J. Market. Res.* 18 (1), 39–50.
- Gao, C., Zuzul, T., Jones, G., Khanna, T., 2017. Overcoming institutional voids: a reputation-based view of long-run survival. *Strat. Manag. J.* 38 (11), 2147–2167.

- Getnet, H., O'Casey, A., Ahmadi, H., Siahtiri, V., 2019. Supporting product innovativeness and customer value at the bottom of the pyramid through context-specific capabilities and social ties. *Ind. Market. Manag.* 83, 70–80.
- Giachetti, C., Dagnino, G.B., 2014. Detecting the relationship between competitive intensity and firm product line length: evidence from the worldwide mobile phone industry. *Strat. Manag. J.* 35 (9), 1398–1409.
- Hall, J., Matos, S.V., Martin, M.J., 2014. Innovation pathways at the base of the pyramid: establishing technological legitimacy through social attributes. *Technovation* 34 (5–6), 284–294.
- Hammond, A.L., Prahalad, C.K., 2004. Selling to the poor. *Foreign Pol.* 142, 30–37.
- Hall, J., 2014. Innovation and entrepreneurial dynamics in the base of the pyramid. *Technovation* 34 (5–6), 265–269.
- Hayes, A.F., Preacher, K.J., 2010. Estimating and testing indirect effects in simple mediation models when the constituent paths are nonlinear. *Multivariate Behav. Res.* 45, 627–660.
- Hill, C.W., 1988. Differentiation versus low cost or differentiation and low cost: a contingency framework. *Acad. Manag. Rev.* 13 (3), 401–412.
- Hofstede, G., 2001. In: *Culture's Consequences: Comparing Values, Behaviours, Institutions, and Organizations across Nations*, second ed. Sage, Thousand Oaks, CA.
- Hoskisson, R.E., Eden, L., Lau, C.M., Wright, M., 2000. Strategy in emerging economies. *Acad. Manag. J.* 43 (3), 249–267.
- Hughes, M., Hughes, P., Morgan, R.E., 2007. Exploitative learning and entrepreneurial orientation alignment in emerging young firms: implications for market and response performance. *Br. J. Manag.* 18 (4), 359–375.
- Jaworski, B.J., Kohli, A.K., 1993. Market orientation: antecedents and consequences. *J. Market.* 57 (3), 53–70.
- Karami, M., Tang, J., 2019. Entrepreneurial orientation and SME international performance: the mediating role of networking capability and experiential learning. *Int. Small Bus. J.* 37 (2), 105–124.
- Kohli, A.K., Jaworski, B.J., 1990. Market orientation: the construct, research propositions, and managerial implications. *J. Market.* 54, 1–18.
- Kolk, A., Rivera-Santos, M., Ruffin, C., 2014. Reviewing a decade of research on the “base/bottom of the pyramid” (BOP) concept. *Bus. Soc.* 53 (3), 338–377.
- Koto, P.S., 2015. An empirical analysis of the informal sector in Ghana. *J. Develop. Area.* 49 (2), 93–108.
- Kusunoki, K., 1997. Incapability of technological capability: a case study on product innovation in the Japanese facsimile machine industry. *J. Prod. Innovat. Manag.* 14 (5), 368–382.
- Lee, K.S., Lim, G.H., Tan, S.J., 1999. Dealing with resource disadvantage: generic strategies for SMEs. *Small Bus. Econ.* 12 (4), 299–311.
- Lee, R.P., Tang, X., 2018. Does it pay to be innovation and imitation oriented? An examination of the antecedents and consequences of innovation and imitation orientations. *J. Prod. Innovat. Manag.* 35 (1), 11–26.
- Lee, R.P., Zhou, K.Z., 2012. Is product imitation good for firm performance? An examination of product imitation types and contingency factors. *J. Int. Market.* 20 (3), 1–16.
- Li, H., Atuahene-Gima, K., 2001. Product innovation strategy and the performance of new technology ventures in China. *Acad. Manag. J.* 44 (6), 1123–1134.
- Liao, C.T., 2020. Laggards imitate, leaders innovate: the heterogeneous productivity effect of imitation versus innovation. *Ind. Corp. Change* 29 (2), 375–394.
- Lieberman, M.B., Asaba, S., 2006. Why do firms imitate each other? *Acad. Manag. Rev.* 31 (2), 366–385.
- Lindell, M.K., Whitney, D.J., 2001. Accounting for common method variance in cross-sectional research designs. *J. Appl. Psychol.* 86 (1), 114–121.
- Liu, W., Atuahene-Gima, K., 2018. Enhancing product innovation performance in a dysfunctional competitive environment: the roles of competitive strategies and market-based assets. *Ind. Market. Manag.* 73, 7–20.
- London, T., 2020. Enabling business model innovation. In: *The Base of the Pyramid Promise*. Stanford University Press, pp. 27–55.
- London, T., Esper, H., Grogan-Kaylor, A., Kistruck, G.M., 2014. Connecting poverty to purchase in informal markets. *Strat. Entrep. J.* 8 (1), 37–55.
- London, T., Hart, S.L., 2004. Reinventing strategies for emerging markets: beyond the transnational model. *J. Int. Bus. Stud.* 35, 350–370.
- Luo, Y., Peng, M.W., 1999. Learning to compete in a transition economy: experience, environment, and performance. *J. Int. Bus. Stud.* 30 (2), 269–295.
- Luo, Y., Sun, J., Wang, S.L., 2011. Emerging economy copycats: capability, environment, and strategy. *Acad. Manag. Perspect.* 25 (2), 37–56.
- Malik, O.R., Kotabe, M., 2009. Dynamic capabilities, government policies, and performance in firms from emerging economies: evidence from India and Pakistan. *J. Manag. Stud.* 46 (3), 421–450.
- Massey Jr., F.J., 1951. The Kolmogorov-Smirnov test for goodness of fit. *J. Am. Stat. Assoc.* 46 (253), 68–78.
- Meyer, K.E., Peng, M.W., 2016. Theoretical foundations of emerging economy business research. *J. Int. Bus. Stud.* 47 (1), 3–22.
- Miller, D., 1983. The correlates of entrepreneurship in three types of firms. *Manag. Sci.* 29 (7), 770–791.
- Morgan, N.A., Kaleka, A., Katsikeas, C.S., 2004. Antecedents of export venture performance: a theoretical model and empirical assessment. *J. Market.* 68 (1), 90–108.
- Mortazavi, S., Laine, I., Quarshie, A., Väättänen, J., Gupta, S., 2020. Multinational enterprise and inclusive innovation at the bottom of the pyramid: a systematic literature review. In: *International Business and Emerging Economy Firms*. Palgrave Macmillan, Cham, pp. 19–47.
- May Nagy, M., Bennett, D., Graham, C., 2019. A framework for market growth in bottom-of-the-pyramid (BOP) markets. In: *EMAC 48th Annual Conference*.
- Nakata, C., Antalis, E., 2015. Enhancing market exchanges at the base of the pyramid. *Int. Market. Rev.* 32 (6), 762–782.
- Neter, J., Kutner, M.H., Nachtsheim, C.J., Wasserman, W., 1996. *Applied Linear Statistical Models*. Irwin, Chicago.
- Nooteboom, B., 1994. Innovation and diffusion in small firms: theory and evidence. *Small Bus. Econ.* 6 (5), 327–347.
- Ofek, E., Turut, O., 2008. To innovate or imitate? Entry strategy and the role of market research. *J. Market. Res.* 45 (5), 575–592.
- O'Reilly III, C.A., Tushman, M.L., 2008. Ambidexterity as a dynamic capability: resolving the innovator's dilemma. *Res. Organ. Behav.* 28, 185–206.
- Owens, J.D., 2007. Why do some UK SMEs still find the implementation of a new product development process problematic?: an exploratory investigation. *Manag. Decis.* 45 (2), 235–251.
- Peng, M.W., Sun, S.L., Pinkham, B., Chen, H., 2009. The institution-based view as a third leg for a strategy tripod. *Acad. Manag. Perspect.* 23 (3), 63–81.
- Peng, M.W., Wang, D.Y.L., Jiang, Y., 2008. An institution-based view of international business strategy: a focus on emerging economies. *J. Int. Bus. Stud.* 39 (5), 920–936.
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y., Podsakoff, N.P., 2003. Common method biases in behavioral research: a critical review of the literature and recommended remedies. *J. Appl. Psychol.* 88 (5), 879.
- Porter, M.E., 1980. *Competitive Strategy*. Free Press, New York.
- Porter, M.E., 1985. *Competitive Advantage*. Free Press, New York.
- Prahalad, C.K., 2005. *The Bottom of the Pyramid—Eradicating Poverty through Profits*. Wharton School Publishing, Upper Saddle River, NJ.
- Prahalad, C.K., 2006. *The Fortune at the Bottom of the Pyramid: Eradicating Poverty through Profits*. Wharton School Publishing, Upper Saddle River, NJ.
- Prahalad, C.K., 2009. *The Fortune at the Bottom of the Pyramid, Revised and Updated 5th Anniversary Edition: Eradicating Poverty through Profits*. FT Press.
- Prahalad, C.K., 2012. Bottom of the pyramid as a source of breakthrough innovations. *J. Prod. Innovat. Manag.* 29 (1), 6–12.
- Prahalad, C., Hart, S., 2002. *The Fortune at the Bottom of the Pyramid*, vol. 26. *Strategy + Business*, pp. 1–14 (First Quarter).
- Preacher, K.J., Rucker, D.D., Hayes, A.F., 2007. Assessing moderated mediation hypotheses: theory, methods, and prescriptions. *Multivariate Behav. Res.* 42 (1), 185–227.
- Qian, C., Wang, H., Geng, X., Yu, Y., 2017. Rent appropriation of knowledge-based assets and firm performance when institutions are weak: a study of Chinese publicly listed firms. *Strat. Manag. J.* 38 (4), 892–911.
- Ramamurti, R., Singh, J.V. (Eds.), 2009. *Emerging Multinationals in Emerging Markets*. Cambridge University Press.
- Ramani, S.V., Mukherjee, V., 2014. Can breakthrough innovations serve the poor (bop) and create reputational (CSR) value? Indian case studies. *Technovation* 34 (5–6), 295–305.
- Rodríguez-Pinto, J., Carbonell, P., Rodríguez-Escudero, A.I., 2011. Speed or quality? How the order of market entry influences the relationship between market orientation and new product performance. *Int. J. Res. Market.* 28 (2), 145–154.
- Rosca, E., Bendul, J.C., 2019. Value chain integration of base of the pyramid consumers: an empirical study of drivers and performance outcomes. *Int. Bus. Rev.* 28 (1), 162–176.
- Sengupta, T., Narayanamurthy, G., Hota, P.K., Sarker, T., Dey, S., 2021. Conditional acceptance of digitized business model innovation at the BoP: a stakeholder analysis of eKutir in India. *Technol. Forecast. Soc. Change* 170, 120857.
- Schnaars, S.P., 1994. *Managing Imitation Strategies: How Later Entrants Seize Markets from Pioneers*. The Free Press/Macmillan, New York.
- Schoenecker, T., Swanson, L., 2002. Indicators of firm technological capability: validity and performance implications. *IEEE Trans. Eng. Manag.* 49 (1), 36–44.
- Schuster, T., Holtbrügge, D., 2014. Resource dependency, innovative strategies, and firm performance in BOP markets. *J. Prod. Innovat. Manag.* 31, 43–59.
- Sciascia, S., Nordqvist, M., Mazzola, P., De Massis, A., 2015. Family ownership and R&D intensity in small-and medium-sized firms. *J. Prod. Innovat. Manag.* 32 (3), 349–360.
- Shenkar, O., 2010a. Imitation is more valuable than innovation. *Harv. Bus. Rev.* (April), 28–29.
- Shenkar, O., 2010b. *Copycats: How Smart Companies Use Imitation to Gain a Strategic Edge*. Harvard Business Press, Boston.
- Singh, R., Bakshi, M., Mishra, P., 2015. Corporate social responsibility: linking bottom of the pyramid to market development? *J. Bus. Ethics* 131 (2), 361–373.
- Song, X.M., Neeley, S.M., Zhao, Y., 1996. Managing R&D-marketing integration in the new product development process. *Ind. Market. Manag.* 25 (6), 545–553.
- Srivastava, A., Mukherjee, S., Jebarajakirthy, C., 2020. Aspirational consumption at the bottom of pyramid: a review of literature and future research directions. *J. Bus. Res.* 110, 246–259.
- Story, V.M., Boso, N., Cadogan, J.W., 2015. The form of relationship between firm-level product innovativeness and new product performance in developed and emerging markets. *J. Prod. Innovat. Manag.* 32 (1), 45–64.
- Su, Z., Peng, M.W., Xie, E., 2016. A strategy tripod perspective on knowledge creation capability. *Br. J. Manag.* 27 (1), 58–76.
- Teubal, M., 1996. R&D and technology policies in NICs as learning processes. *World Dev.* 24, 449–460.
- Thompson, B., 2004. *Exploratory and Confirmatory Factor Analysis: Understanding Concepts and Applications*. American Psychological Association, Washington, DC.
- Thornhill, S., 2006. Knowledge, innovation and firm performance in high-and low-technology regimes. *J. Bus. Ventur.* 21 (5), 687–703.
- Tsai, K.H., Hsu, T.T., 2014. Cross-functional collaboration, competitive intensity, knowledge integration mechanisms, and new product performance: a mediated moderation model. *Ind. Market. Manag.* 43 (2), 293–303.

- Vassallo, J.P., Prabhu, J.C., Banerjee, S., Voola, R., 2019. The role of hybrid organizations in scaling social innovations in bottom-of-the-pyramid markets: insights from microfinance in India. *J. Prod. Innovat. Manag.* 36 (6), 744–763.
- Voss, G.B., Sirdeshmukh, D., Voss, Z.G., 2008. The effects of slack resources and environmental threat on product exploration and exploitation. *Acad. Manag. J.* 51 (1), 147–164.
- Wei, Y.S., Atuahene-Gima, K., 2009. The moderating role of reward systems in the relationship between market orientation and new product performance in China. *Int. J. Res. Market.* 26 (2), 89–96.
- White, H., 1980. A heteroskedasticity-consistent covariance matrix estimator and a direct test for heteroskedasticity. *Econometrica* 48 (4), 817–838.
- World Bank, 2019. *The Little Data Book on Africa 2019*. World Bank, Washington, DC.
- Wu, J., Harrigan, K.R., Ang, S.H., Wu, Z., 2019. The impact of imitation strategy and R&D resources on incremental and radical innovation: evidence from Chinese manufacturing firms. *J. Technol. Tran.* 44 (1), 210–230. <https://www.worldometers.info/world-population/population-by-region/>.
- Yiu, D.W., Lau, C., Bruton, G.D., 2007. International venturing by emerging economy firms: the effects of firm capabilities, home country networks, and corporate entrepreneurship. *J. Int. Bus. Stud.* 38 (4), 519–540.
- Zhao, M., 2006. Conducting R&D in countries with weak intellectual property rights protection. *Manag. Sci.* 52 (8), 1185–1199.
- Zhou, K.Z., 2006. Innovation, imitation, and new product performance: the case of China. *Ind. Market. Manag.* 35 (3), 394–402.
- Zhou, K.Z., Wu, F., 2010. Technological capability, strategic flexibility, and product innovation. *Strat. Manag. J.* 31 (5), 547–561.
- Zhu, F., Wei, Z., Bao, Y., Zou, S., 2019. Base-of-the-pyramid (BOP) orientation and firm performance: a strategy tripod view and evidence from China. *Int. Bus. Rev.* 28 (6), 101594.