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Abstract

Dynamic capabilities alone may not sustain competitive advantage, but they may lead to better firm performance through interacting with other capabilities. This paper empirically investigates the role of marketing capabilities on the relationship between dynamic capabilities and firm performance and the effect of environmental dynamism in marketing capability development through a study of 162 top-level managers from the automotive industry in Turkey using multiple regression methods. The results show that the marketing capabilities of firms mediate the relationship between dynamic capabilities and economic performance. However, environmental dynamism did not play a moderating role in the relationships between marketing capabilities and performance. It is concluded that dynamic capabilities are associated with improved firm performance via marketing capabilities. Furthermore, the insignificant impact of environmental dynamism on the development of marketing capabilities leading to better performance was explained by firms' given over-performing efforts in the context of emerging markets.

Keywords: Dynamic capabilities; marketing capabilities; environmental dynamism; international business; financial performance; automotive industry; regression analysis; emerging markets; Turkey.

1. INTRODUCTION

In today's dynamic business environments, firms need specific skills like Dynamic capabilities (DC hereafter) and Marketing capabilities (MC hereafter) to sustain competitive advantage. MC are essential skills that help firms to predict and explore new market potentials, offer unique

products and services to address customer expectations, and formulate competitive strategies to achieve the best market performance (Vorhies, 1998; Morgan, Vorhies & Mason, 2009; Moorman & Day, 2016; Hunt & Madhavaram, 2020). Several authors (i.e., Vorhies & Morgan, 2003; Day, 2011; Moorman & Day, 2016; Freixanet et al., 2020) claim that firms must quickly adapt themselves to the conditions of fast-changing, hypercompetitive global markets by not only constantly adjusting their marketing-related decisions and operations but also extending, modifying and/or reconfiguring their resource-base. The rapid and sound adjustments in marketing-related decisions and operations can only be made by "vigilant market learning that enhances deep market insights, adaptive market experimentation that continuously learns, and open marketing that forges relationships with partners that are more closely attuned to market changes" (Day, 2014, p. 28). Thus, MCs can better respond to fast-changing environmental conditions through converging with other abilities, i.e., dynamic capabilities. DCs help firms rebuild their existing marketing skills and/or create new ones. Therefore, we propose that DCs, which contain three dynamic mechanisms, sensing, seizing, and reconfiguring, may enhance the effectiveness of MCs in non-static environments (Teece, Pisano & Shuen, 1997; Teece, 2007, 2014; Weerawardena et al., 2015; Lee & Chandra, 2020).

The relationships between MC and DC may sequentially occur. Firstly, firms can detect early signals about changing customer needs and market conditions and make sound forecasts through the sensing mechanism (Schilke, Hu & Helfat, 2018; Kamasak et al., 2020; Kamasak & Cansever, 2019). Moreover, accordingly, value-creating marketing decisions can be made rapidly by the seizing mechanism of DC (Helfat & Martin, 2015; Baden-Fuller & Teece, 2020). Subsequently, reconfiguring the firm's resource base to create new resource bundles or shift limited resources for marketing activities may increase the MCs' effectiveness (Moorman & Day, 2016; Kamasak et al.,

2019). We suggest that DC may impact and translate into MC, affecting a firm's economic performance. Therefore, analyzing the MC performance with a DC lens constitutes a logical choice (Barrales-Molina et al., 2014; Morgan, Feng & Whitler, 2018).

There are calls which suggest that the deployment of resources and capabilities for superior firm performance may be contingent on external contextual variables, i.e., environmental dynamism (Sirmon et al., 2011; Kamasak et al., 2019; Sun et al., 2020) as well as the three mechanisms of DC. Namely, the performance outcomes of DC and MC may also vary according to the level of dynamism in business environments. In response to these calls, we explore the roles and relations of DCs and MCs to generate firm performance through new empirical data from the automotive industry in an emerging market, Turkey, where volatile market conditions may compel firms to utilize both their DCs and MCs (Kamasak et al., 2019). The automotive industry plays a critical role as a significant contributor to the economies of many countries because of its large market size and added value, and the Turkish economy is no exception. Therefore, with its dynamic character, which is shaped by fierce competition among car manufacturers, fluctuating customer demands, and the strong effect of environmental forces, i.e., tax regulations, sustainability requirements, and health concerns (Kushwaha & Sharma, 2016), the automotive industry provides an ideal context for examining the performance outcomes of MC and DC in non-static environments (Munten et al., 2021; Siems et al., 2021).

This paper contributes to the dynamic capabilities research in three ways. First, the study shows whether better financial performance can be achieved through an integrated MC and DC framework compared to the economic gains generated by MC alone. Thus, the study offers a unique insight to understand DC's roles in the relationship between MC and firm performance. Second, the paper explains if the level of environmental dynamism influences the utilization of MCs. Thus,

with a better understanding of the ability of MCs in determining firm performance under different levels of environmental dynamism, firms can be advised about when they should reconfigure their resource base and which critical MCs should be upgraded to achieve superior performance. Finally, this study provides evidence about the impact of MC and DC convergence on firm performance by employing emerging market (i.e., Turkey) data rare in the extant literature. The majority of empirical work covering marketing and dynamic capabilities is focused on firms in developed countries (Kamasak et al., 2017; Salnikova & Grunert, 2020), yet the share of emerging market economies accounts for nearly 42 per cent of the world's GDP in 2021 (Cavusgil et al., 2021). The growing importance of emerging market economies in shaping global consumption trends and affecting international firms' decisions on resource and capability development and deployment requires more applied research in emerging markets. Therefore, this study also offers empirical evidence about the interactive effects of MC and DC, which may lead to superior performance by enhancing firms' ability to make more prudent strategic decisions and take necessary actions rapidly in emerging markets.

2. THEORY AND HYPOTHESES DEVELOPMENT

2.1. Dynamic capabilities

The dynamic capabilities (DC) concept, which remains a well-charted terrain in the extant literature, reflects an organization’s capacity to (purposefully) alter, renew or reconfigure its resource base to lead to superior performance (Teece et al., 1997; Helfat et al., 2007; Teece, 2018). The main reason for utilizing DCs is to enhance firms’ ability to provide more dynamic responses to continuously changing environments and sustain competitive advantage (Sirmon et al., 2011; Schilke et al., 2018). In line, Teece (2007) suggests that DCs “embrace the companies’ capacity to shape the ecosystem they compete in, develop new products and processes, design and implement

viable business models" (p. 1320). Specifically, within a dynamic environment, DCs allow companies to reposition their existing resources while increasing their ability to respond to changing market conditions accordingly (Landroguez, Castro & Cepeda-Carrión, 2011; Helfat & Peteraf, 2015). Additionally, companies with strong DCs can seize the opportunities and threats in the environment to renew and retransform their existing resources, assets, and capabilities to capitalize on a market advantage to deliver a created value to their customers. The role of DCs in the way of creating firm performance is commonly accepted in the field (i.e., Wang, He & Mahoney, 2009; Mahmood, Zhu & Zajac, 2011; Protogerou, Caloghirou & Lioukas, 2012), yet the operationalization of DCs has been a target for constant criticism (Priem & Butler 2001; Arend & Bromiley, 2009; Giudici & Reinmoeller, 2012; Kurtmollaiev, 2020). A considerable amount of theorists (i.e., Song et al., 2005; Zahra, Sapienza & Davidsson, 2006; Sapienza et al., 2006; Di Stefano, Peteraf & Verona, 2014; Teece, 2017; Hunt & Madhavaram, 2020) suggest that the operationalization of DCs can only be achieved if they act with other ordinary capabilities. For example, integrating DC with marketing and supply chain capabilities may determine a firm's operational effectiveness (Eisenhardt & Martin, 2000; Winter, 2003). DCs can modify ordinary capabilities and extend or renew the firm's broader resource base through its sensing, seizing, and reconfiguring mechanisms and these changes may ultimately lead to firm performance (Eisenhardt & Martin 2000; Teece 2007).

2.2. Marketing capabilities

Marketing capabilities (MCs) refer to "a firm's ability to use available resources to perform marketing tasks in ways that achieve desired marketing outcomes" (Morgan et al., 2018, p. 61). Nath et al. (2010) define MCs as "the integrative process in which a firm uses its tangible and intangible resources to understand complex consumer specific needs, achieve product

differentiation relative to competition, and achieve superior brand equity" (p. 319). Similarly, Kaleka and Morgan (2019) highlight MCs as a complex and coordinated set of skills, knowledge, and activities that the company uses to transform its existing resources into market-related value outputs. Previous studies (i.e., Hooley et al., 2005; Kamasak, 2013; Kamasak & Yozgat, 2013; Wilden & Gudergan, 2015) show that MCs help companies create sustainable relationships with customers and yield higher customer loyalty, which affects the firm performance. In addition, MCs help firms manipulate "unique marketing mix strategies, create a strong brand image and influential corporate reputation, and retain strong bonds with suppliers and other channel members" (Kamasak, 2013, p. 239). MCs comprise competencies related to new product development, pricing, channel management, marketing research, marketing communication, and marketing strategy and implementation (Vorhies & Morgan, 2005; Morgan et al., 2009).

Product development refers to new products and services that offer value to the customers and better meet their needs and demands, as well as representing new opportunities for the future and creating a more sustainable business (James & Woelfel, 2000; Vijande et al., 2012, Morgan 2012), whereas pricing is the capability to define the price policy that leads the company to achieve maximum revenue from the market. Dacko et al. (2008) emphasized that establishing the right pricing strategy may increase perceived quality. In addition, firms can offer unique shopping and purchasing experiences to their customers through effective channel management decisions (Kamasak, 2008; Gao & Huang, 2021). Marketing research enables firms to have sufficient information about customer expectations and capture deep customer insights (Ramaswami, Srivastava & Bhargava, 2009; Morgan et al., 2018). While firms can maintain and maximize their personalized relations with customers through marketing communication (Cambier & Poncin, 2020), prudent decisions regarding marketing strategy and implementation help firms "select the

most productive available resource combinations to match market conditions" (Kamasak, 2013, p. 243). In line, a considerable amount of research has shown that MCs are strongly related to company performance, and many firms try to build, maintain, and leverage MCs (Krasnikov & Jayachandran, 2008; Morgan et al., 2009b; Slotegraaf & Dickson, 2004; Vorhies & Morgan, 2005). Ateke and Nwulu (2021) examined the impact of MCs on firms' adaptability. They found that MCs were a necessary antecedent of increased responsiveness and superior performance contributing to a business strategy.

2.3. The DC and MC relationship and firm performance: the mediating role of marketing capabilities

The dynamic capabilities perspective (Eisenhardt & Martin, 2000; Zahra, Sapienza & Davidsson; 2006; Lee & Chandra, 2020) suggests that DCs cannot exclusively impact firms' performance, but their potential benefits can be realized indirectly via using marketing capabilities effectively and efficiently. Dynamic capabilities, which are tools for gaining competitive advantage, emerge from routines from which a firm reconfigures its capabilities and changes its resource base to establish new value-creating strategies (Freixanet & Renart, 2020). Freixanet and Renart (2020) also point out that dynamic capabilities are identifiable processes observed in product development routines. They also claim a relationship between some of the capabilities and the company's performance. Protogerou et al. (2012) found that DCs' effect on firm performance was mediated by operational competencies (i.e., marketing and technology). Sensing, seizing, and reconfiguring are the mechanisms of dynamic capabilities that are not unique and can be duplicated across firms (DiStefano et al., 2014; Teece, 2018). They can also be obtained by many firms which employ several methods and paths; thus, DCs cannot be acknowledged as sources of competitive advantage (Eisenhardt & Martin, 2000; Zott, 2003). Nevertheless, MCs such as new product development that

can lead to innovative product and service offerings or creative marketing communication campaigns that can maintain customer loyalty can be considered strategic skills; thus, MCs are often unique to firms and not easily imitated (Drnevich & Kriauciunas, 2011; Takahashi et al., 2017; Teece, 2017). Firms with robust MCs can "be more alert, timely, and accurate in assessing its customers' needs than [their] rivals, and [they] can thus produce market offerings that have better value" (Lee & Chandra, 2020, p. 590). DCs will result in superior economic performance if firms apply their MCs effectively. For example, when sensing, which reflects a "systematic, thoughtful, and anticipatory" (Teece et al., 1997) mechanism, focuses on acquiring relevant marketing intelligence, including heightened awareness of the business context, better recognition of the marketplace, potential clients, customer needs, distribution requirements and pricing expectations (Teece, 2007), firms can gather sufficient marketing-related information. Day (1994) states that firms that can use market-sensing mechanisms can "learn about customers, competitors, and channel members in order to continuously sense and act on events and trends in present and prospective markets" (p. 43). Similarly, some DC scholars (Grant, 1996; Eisenhardt & Martin, 2000) posit invaluable market knowledge generated by the market sensing mechanism as a critical element for any DC.

Once firms sense and seize that they have to make the necessary extension, deployment, or renewal in their marketing activities, the interaction with their MC related capabilities enhances the potential of leading to better performance (Teece, 2007; Schilke et al., 2018; Kaleka & Morgan, 2019). Since the potential benefits of DCs can be realized via MCs, we propose that:

H1: The relationship between dynamic capabilities and firm performance is positively mediated by marketing capabilities

2.4. The moderating role of environmental dynamism in the relationship between marketing capabilities and firm performance

Environmental dynamism (ED) refers to the level of change in technology, customer needs and demands within an industry, unpredictability and volatility in market conditions and competition, and instability in external conditions, i.e., political, economic, and social factors (Jansen, Vera & Crossan, 2009; Kamasak, Yavuz & Altuntas, 2016). According to Sirmon, Hitt, and Ireland (2007), "environmental dynamism results in a high amount of uncertainty that produces deficits in the information needed to identify and understand cause and effects relationships" (p. 275). Therefore, an industry characterized by high uncertainty and dynamism may limit a firm's responsiveness to environmental changes, assess customer demands, steer its business strategy, and explore new viable business opportunities (D'Aveni, 1997; Gonzalez-Benito et al., 2012). Against the prediction-, forecasting- and operation-related disadvantages of firms that may result from high levels of ED, dynamic environments can also compel firms to strengthen their existing marketing (and also other) capabilities or develop new ones. The improvements in firms' capabilities do not only enable firms to cope with their "organizational inertia and myopia of learning" (Levinthal & March 1993), but they are sources that contribute significantly to competitive advantage and superior performance (Mu, 2017; Schilke, 2014; Collis, 1994).

Particularly in the context of emerging markets where "a high variety of market segments along with rapid and discursive consumer shifts that may emerge as a consequence of divergent income distribution and low education levels of consumers" (Cavusgil, Ghauri & Akcal, 2021, p. 14) occur, firms may need to find creative marketing-mix solutions. Furthermore, the firms need to establish long-term relations with customers, make prudent pricing decisions, use extensive marketing research for market intelligence and rapidly launch new products and services. Additionally, a

unique channel management strategy that enables a firm to reach the broadest possible customer base can influence firm performance. For example, the Turkish on-demand delivery firm Getir, operating only in a few districts in Istanbul before the Covid-19 pandemic, predicted the booming trends in online shopping. In the turbulent economic and social context, the firm rapidly adopted a channel management strategy based on a collaborative and value-added approach to forging sustainable partnerships. Through this successful channel management, the firm achieved substantial sales growth and extended its operations throughout Turkey. Moreover, Getir UK and Getir Spain started their operations in 2021. Drawing upon MC, it can be argued that MC appears to have a more substantial impact on the firm's performance when there is greater environmental volatility. The relationship between MC and firm performance in a highly dynamic environment will be greater than in a less dynamic environment. Thus, we posit upon the MC to hypothesize that in the automotive industry, characterized by environment dynamism, possessing superior MC will attain better performance outcomes. In line with these explanations, we hypothesize that:

H2: Environmental dynamism moderates the relationship between marketing capabilities and firm performance

The conceptual model, including the hypotheses developed, is illustrated in Figure 1. The conceptual model shows the mediating effect of MC in the relationship between DC and firm performance (H1) and the moderated mediation effect of ED in the relationship between MC and firm performance (H2).

FIGURE 1. TO BE INSERTED HERE

3. THE CONTEXT

The automotive industry is one of the prominent sectors in Turkey due to its enmeshed relationship with other sectors in the economy. For example, the automotive industry is one of the largest buyers of iron-steel, petroleum, and chemical industries. Thus, any developments in the automobile industry influence other industries parallelly. Due to its interconnectedness and being the largest export industry in Turkey (Badem et al., 2013), understating automotive incumbents adopted MC is critical. The automotive sector requires cross-border alliances to manage increased sunk costs and attain economies of scale. To achieve cost-efficiency and maximize sales, automotive manufacturers need large budgets for their marketing functions. For instance, expanding the vehicle portfolio of OEMs through the globalized sales channels intensifies price competition and rivalry (Diehlmann and Häcker, 2013). Furthermore, due to the increasing technological innovation and imposed green management regulations, traditional vehicles will substantially be modified, leading to a heightened need for successful MC, such as effective marketing communication and strategy (Berger, 2017).

The establishment of the automobile industry in Turkey is dated back to the early 1960s. The automobile industry played a critical role in integrating the Turkish economy into the global value chain as part of mass industrialization efforts. Turkey is one of the essential automobile OEMs with a total investment exceeding 15 billion USD (Presidency of The Republic of Turkey Investment Office, 2022). Turkey's Automobile Joint Venture Group (TOGG) manufactures various models within the dynamic local market, and currently, 8 Turkish original equipment manufacturers (OEMs) have produced over 1.3 million units in 2021. This rapid growth represents a nearly 6 per cent compound annual growth rate (CAGR), making the Turkish automotive industry the fourteenth largest manufacturer globally and fourth-largest in Europe (Presidency of The Republic

Turkiye Investment Office, 2022). Although depicting the economic geography of the automobile industry is complex, several contingencies like the market saturation in OECD countries and high shipping costs have forced automakers to adopt outsourcing options (OECD, 2021).

Considering the impact of global economic challenges, such as the unpredictability of oil prices and various government interventions to reduce carbon dioxide emissions, Turkish firms in the automotive industry should become more alert and agile to address the requirements of global conditions. The projected sales growth trend, which will be in BRIC (Brazil, Russia, India, and China) and other emerging markets (OECD, 2021; McKinsey, 2020), is likely to lead to a shift toward the Turkish automobile industry thus, it is crucial to understand and explore how Turkish firms can adapt and navigate the challenges to their sustained existence and viability. Accordingly, the Turkish automotive industry is expected to strengthen its capabilities in a global market characterized by heightened volatility facing rapid technological breakthroughs and inexorable competition.

4. METHOD

4.1. Sample and data collection

A self-administered questionnaire was used to collect data. The sample included the firms which operate in the Turkish automotive industry. The automotive ecosystem has forward and backward relationships with other sectors such as steel, iron, aluminum, rubber, electronics, plastic, glass, textile, and chemicals (Saberi, 2018); thus, the interaction of the automotive industry with other industries creates an enormous volume of economic activity. A few big players dominate the automotive industry in Turkey. Although there are many micro-firms in the industry, their effect on the industry is limited, most of them are not registered by automotive associations, and micro

firms do not have sufficient knowledge to assess the strategic issues that are included in this study; thus, micro firms are excluded in the sample. Forty-seven international and six national brands constitute nearly 95% of the total market (Automotive Manufacturers' Association Report - OSD, 2021). We approached 53 automotive firms that were registered in the databases of the Automotive Manufacturers' Association (OSD), Automotive Distributors Association (ODD), Heavy Commercial Vehicles Association (TAID), and Automotive Suppliers Association (TAYSAD) in Turkey; thus, our sample comprised all firms in the market. We selected only top and senior-level managers as the key informants who had adequate knowledge to assess the firms' strategy and performance-related issues (Galbreath & Galvin, 2008; Cao, Simsek & Jansen, 2015). Therefore, the questionnaires were sent to 486 top managers from 53 firms that operate in the Turkish automotive industry. The participants included the general managers, CEOs, directors, and division managers such as marketing and finance managers. A foremost concern was to obtain at least three questionnaires from each firm to minimize the risk of getting biased answers from only one manager. An online link that directs participants to the questionnaire was sent to the managers obtained from the database via e-mail. Over four months (between May to August 2020), we got 162 usable questionnaires out of 486, yielding a response rate of 34%. The composition of the sample is illustrated in Table 1.

TABLE 1. TO BE INSERTED HERE

The majority of the firms had between 101-250 employees (33%), and the firm age was between the years of 26-50 (50%). The mean number of employees was 342.67, and the standard deviation was 266.84. The mean number of years in business was 32.62, and the standard deviation was 32.49. The majority of the participants hold GM positions (77%) with industry experience of more

than 15 years (40%), and the gender has an unequal distribution, with 90% of the participants being male, and the majority of the participants have tenure with the company over 15 years (40%).

4.2. Measurement instruments

The questionnaire included 55 items in total, including age and size. In order to measure the DC dimensions, we compiled 19 items in total from different studies based on the conceptualization of DC. DC has three sub-dimensions (Teece, 2007): sensing, seizing, and reconfiguring. The sensing dimension was measured by 6 items from Wilden et al. (2013) scale. This scale included items like "our company knows the best practices in the market" and "our company notices changes quickly". Seizing and reconfiguring dimensions were measured via Jantunen et al.'s (2005) scale. While sensing and seizing dimensions consisted of 6 items each, reconfiguring dimension was assessed by 7 items. All items were measured with a five-point Likert scale. Vorhies and Morgan's (2005) instrument was used to measure marketing capabilities in the study. Although the original instrument included 7 dimensions, the sales dimension was excluded from the scale to prevent erroneous results. The companies in the Turkish automotive industry work based on long-term pre-sales agreements, and they do not use sales dimensions actively; thus, the inclusion of sales dimensions would have produced biased findings. Therefore, marketing capabilities were assessed by 6 sub-dimensions which were pricing, product development, channel management, marketing communication, marketing research, and marketing strategy implementation. The environmental dynamism scale used in this research was adapted from Jantunen et al. (2005), which included questions like "technological development is rapid in our field of business" or "the ability to operate quickly is crucial for success in our field of business". Responses were recorded on a five-point Likert-type scale, with anchors of "strongly disagree" (1) to "strongly agree" (5). Firm performance was measured by Spanos and Lioukas's (2001) performance scale that comprises 3

questions, including growth in market share, profitability, and sales revenue. Participants rated their firm's performance regarding the major competitors over the past three years on a five-point Likert-type scale from "strongly disagree" (1) to "strongly agree" (5).

4.3. Validity and reliability issues

Exploratory factor analysis (EFA) that employs the VARIMAX rotation method was performed for all the measurement instruments used in this study to explore whether the results conformed with the predetermined factors in the literature. In EFA, "loadings are used to detect whether or not an item appropriately loads on its predicted construct" (Galbreath, 2004, p. 165). Therefore, we have marked the item loading cut-off point at .50 for each instrument, and item loadings of .50 or greater are considered significant for validity.

Additionally, Kaiser's criterion of Eigenvalues greater than 1.00 has also been examined to support validity. To address the reliability issues, Cronbach's alpha (α) and Average Variance Extracted (AVE) were calculated for each instrument. The instruments with Cronbach's alpha values equal to and higher than the minimum threshold value of .70 indicated adequate internal reliability (Hair et al., 2017).

The EFA was conducted to assess the factorial structure of DC, consisting of 19 items. One item (#11) has appeared under more than one factor; thus, we dropped it from the analysis and continued with 18 items. Our analysis yielded 2 factors that were sensing and reconfiguring. The items of sensing and seizing were loaded on a single factor. One explanation for this result might be that the participants could not discern the differences between sensing and seizing mechanisms. Another explanation can be more theory-related. Some DC scholars (i.e., Wang & Ahmed, 2007; Wu, Chen, & Jiao, 2016) propose that DCs have external and internal orientations, and DCs may

be categorized as opportunity-capitalizing (internal) and opportunity-recognizing (external) capabilities. The items of sensing and seizing mechanisms that comprise searching- and strategic decision-making related elements to recognize and acquire opportunities from the external environment might create such a perception for the participants that both mechanisms work for the same purpose. However, the reconfiguration of the resource-base of a firm comprises organizational change- and implementation-related internal actions; thus, understanding the respondents for the DC operationalization may be more prone to external and internal DC categorization in this study. Nonetheless, more replication studies are required to prove our explanations.

The Kaiser-Meyer-Olkin measure substantiated the sampling adequacy for the analysis KMO= .947. Barlett's test of sphericity Chi-Square= 2324.866, p< .001, demonstrating that correlation structure was suitable for performing factor analysis. The DC factor analysis yielded a two-factor as the best fit for the data, explaining 66.32% of the total variance. The EFA output shows that "opportunity-recognizing" is loaded on factor 1 (F1), and "opportunity-capitalizing" is loaded on factor 2 (F2). We have calculated the internal reliability of the factors as (α= .930) for opportunity-recognizing and (α= .942) for opportunity-capitalizing. The overall reliability of the DC measurement instrument was found adequate with the value of (α= .958).

The EFA analysis for the MC instrument, which comprised 28 items, yielded 6 factors (as suggested in the literature) that explained 75,2% of the total variance. Two items (#3 - doing an effective job of pricing products/services and #22 - making full use of marketing research information) were eliminated since they were cross-loaded. Therefore, we continued the analysis with 26 items. Additionally, one item (#18 - gathering information about customers and competitors), originally intended to measure marketing research factors, was loaded on the pricing

factor. As this analysis requires gathering extensive information about customers and competitors, the respondents might have perceived this question as related to pricing decisions; thus, we did not exclude the item from the analysis. We have calculated the internal reliability of the factors as (α= .771) for pricing (F1), (α= .853) for product development (F2), (α= .959) for channel management (F3), (α= .889) for marketing communication (F4), (α= .803) for marketing research (F5) and (α= .942) for marketing strategy and implementation (F6). The overall reliability of the MC measurement instrument was found adequate with the value of (α= .921).

The environmental Dynamism (ED) scale is loaded on a single factor. The scores of the Kaiser-Meyer-Olkin test (KMO=.853) and Barlett's test of sphericity Chi-Square= 377.097, p< .001, substantiated the adequacy of the analysis. Furthermore, the internal reliability of the scale is also high (α= .871).

Finally, the Firm Performance (FP) scale is loaded on a single factor with significant test scores of KMO= .650 and Barlett's test of sphericity Chi-Square= 96.168, p< .001. The alpha value of .713 indicated that the internal reliability of the scale was adequate. The results of all factor analyses are presented in the Appendix.

In addition to item loadings and alpha values to assess reliability, the average variances extracted (AVE) scores were calculated to test convergent validity. We have AVE for each of the constructs, and each construct had an AVE value above the expected threshold of .50 (Chin, Marcolin, & Newstead, 2003). Thus, reliability and convergent validity were supported.

Multicollinearity refers to the existence of highly correlated exploratory variables that may predict each other and undermine the statistical significance and accuracy of the regression model (Hair, 2017). Therefore, inter-correlations between variables were checked, and no unacceptable level of correlation higher than .80 between variables was observed (Sekaran & Bougie, 2013). As another

diagnostic tool for multicollinearity, each variable's variance inflation factor (VIF) was examined. The VIF scores were below 3, which is accepted as problematic (Kothari, 2015). These results indicated that there was no multicollinearity problem in the model. Inter-item correlations, VIF scores, and AVE scores are presented in Table 2.

TABLE 2. TO BE INSERTED HERE

5. ANALYSES AND RESULTS

The data were analyzed by the regression method, and the mediation and moderation tests were conducted to test the established hypotheses. Older firms may have more experience in markets and have extensive networking skills, which enable them to access external resources, yet younger firms may have more flexibility for adaptation and change (Surroca, Tribó, & Waddock, 2010; Doherty, Haugh, & Lyon, 2014). Similarly, larger firms may have greater access to key resources and may have more potential to develop capabilities (Wei, Yi, & Guo, 2014). Therefore, firms' age and size were controlled to observe the real impact of other variables on firm performance (Weerawardena et al., 2015).

The mediating role of MC on the relationship between DC and firm performance was assessed through hierarchical regression and mediation tests. We adopted the methodology of Baron and Kenny (1986) to determine whether MCs worked as a mediator or not. In Model 1, we examined the direct relationship between DC and firm performance, which was the first precondition to continue the analysis, and we found a significant result ($\beta = .439$; $t= 6.174$; $p < .001$). In Model 2, additionally, MC was entered and a direct relationship between MC and firm performance was found ($\beta = .195$; $t= 1.993$; $p < .05$). When MC was entered to the model, β value of DC reduced from .439 to .303 while p values were significant ($t= 3.090$; $p < .05$). Moreover, based on the change in the adjusted R^2 values, the contribution of DC to firm performance significantly

increased from .187 to .202 [ΔR^2 (adjusted) = .015] with the entrance of MC into the model (Table 3), thus, the hypothesis was also supported.

TABLE 3. TO BE INSERTED HERE

First, the moderating effect of ED on ED on the direct relationship between MC and firm performance was assessed through hierarchical regression. In Model 1, MC was entered into the regression model, and then in Model 2, the interaction term (MC x ED) was added. Yet, the interaction term was insignificant (β = .013; t= .103; p= .918) in predicting firm performance. Moreover, the interaction between MC and ED did not contribute to explaining performance variation (no significant change in R^2) (Table 4).

TABLE 4. TO BE INSERTED HERE

Then, we tested the moderated mediation analysis to explore whether ED affects the relationship between the mediator (MC) and the dependent variable (the second stage of moderated mediation) (Edwards & Lambert, 2007). To test the relationship, we have utilized Hayes Process Macro Model 14. The moderated mediation hypothesis was tested at the 95% confidence interval using Bootstrapping method (Hayes, 2013, 2018). Bootstrap confidence level interval can be interpreted as supporting the significance of interaction if it does not include "0" between the lower and upper bound. The regression analysis shows that Dynamic Capability (DC) is a significant predictor of Marketing Capability with a p-value of (p< .05), and zero falls within the 95% confidence interval (Bootstrap CI: .5391 to .7495). However, there was no statistically significant moderated mediation effect between Marketing Capability (Mediation) and Environmental Dynamism (Moderator) on Firm Performance (Dependent Variable) (M*W = – .0051; Bootstrap CI95 = – .1619 and .1720). The result of the analysis shows that the indirect effect of DC on FP through MC does not depend

on the levels of ED. Therefore, the analysis shows that the confidence level does include 0; thus, the H2 hypothesis of moderated mediation is not supported (Table 5).

TABLE 5. TO BE INSERTED HERE

6. DISCUSSION

This paper aimed to explore the capabilities and performance linkage in the context of the Turkish automotive industry and, more specifically, how dynamic capabilities influence the economic performance of firms via marketing capabilities. As a result, one of our two hypotheses is supported.

Our findings concerning H1 show that MC mediates the relationship between DC and firm performance. These findings support DC scholars (i.e., Helfat et al., 2007; Pavlou & El Sawy, 2011) who suggest that DCs alone do not necessarily lead to better economic performance. Operational capabilities such as MCs are daily executed activities that may use more or less the same methods and techniques in a similar way to support current products and services for the customers (Helfat & Winter, 2011; Teece, 2014). However, DCs are the mechanisms that can modify operational capabilities to appropriateness (Eisenhardt & Martin, 2001; Wilden & Gudergan, 2015). Therefore, "MCs may serve as the necessary leveraging mechanism to transform" (Lee & Chandra, 2020, p. 597) a firm's DC into superior performance. For example, the sensing mechanism of DC deals with "precautionary signals and sound forecasts about a new market trend or concern of the society for developing scenarios guiding to the optimal strategic change" (Kamasak et al., 2020, p. 23) when employed as a tool to operate an existing marketing capability, may create new resource configurations and greater firm performance. Similarly, the reconfiguring mechanism of DC, which refers to "extending or modifying the firm's resources and capabilities to conduct successful strategies" (Kamasak et al., 2020, p. 26), once orchestrated in

excellence, will increase the successful transformation of MCs, resulting in superior long-term firm performance (Eisenhardt & Martin, 2000). So, coupled with the reconfiguring mechanism, firms can purposefully and flexibly modify their resource and knowledge base to implement innovative market-based solutions and design new products or services, which lead to superior firm performance. Thus, the results support the mediating role of MC on DC–the financial performance relationship in the context of dynamic environments.

Contrary to our expectations, we did not find evidence for H2 in which the moderating role of environmental dynamism on the MC–firm performance relationship was tested. One explanation for this unexpected finding is that the Turkish automotive industry suffers from the heaviest industry-specific tax burden globally, enacted by the Turkish government (Gönül, Duman, & Güler, 2021). Additionally, Turkey's economic and human development indicators have been worsening over the last ten years, and this situation made the business environment more brutal in Turkey. As a result, the decisions concerning tax rates, carbon emission regulations, and product specifications were frequently made over a night by the government before the firms could find the opportunity to take the necessary actions to maintain their competitive position. Under these unforeseen legal practices, firms in the automotive industry might always prepare themselves for the worst-case scenarios no matter the level of environmental dynamism. Therefore, no impact from environmental dynamism might be observed.

This study empirically shows the importance of marketing capabilities for firm performance in the automotive industry. Thus, managers should allocate significant efforts and resources to improve marketing capabilities and other capabilities, such as operational and innovation capabilities (Alkan et al., 2022). Investment in plants, machinery, and equipment in various global manufacturing plantations exemplify immense initial and continuing investment costs resulting in a high degree

of sunk costs within the automotive industry. Furthermore, the complexity of the production and by-product portfolio offered in various global markets leads to an increased number of facilities that intensifies existing competition. The automotive industry has distinctive importance in the Turkish economy, and Turkey currently is the fourteenth largest automotive producer in the world. As one of the largest OEMs in Europe, Turkey, like other automotive incumbents, relies on efficient production capacity to minimize initial and continuing costs to maximize performance outcomes. Thus, generally, OEMs have large budgets for marketing functions such as brand promotion and positioning (Lempp & Siegfried, 2022) to strive in the competition. Furthermore, the Turkish automotive industry needs effective DC to detect external threats and seize potential opportunities in dynamic market conditions.

In addition, although the Turkish automotive industry has developed in line with the low-cost economy model of the country (Kamasak, 2011, 2017; Kamasak & Yavuz, 2015), the demand for electric and even autonomous vehicles is likely to increase in the following years. The new era in the automotive industry requires more R&D and innovation-based products, i.e., green vehicles with low carbon footprint, robotics, and long-life batteries for electric vehicles. Therefore, the cost-related pricing may no longer be a competitive advantage for the firms in the Turkish automotive industry; thus, more investment in disruptive technologies should be considered.

Furthermore, given the importance of detecting future trends and acting flexibly, firms should establish specific teams for market screening and identify dynamic market changes earlier to strengthen the sensing mechanism. Additionally, firms should have flatter organizational structures and units, leading to quick decision-making and effective communication supporting reconfiguring mechanisms.

7. LIMITATIONS AND FURTHER RESEARCH SUGGESTIONS

Our study has some limitations. The small sample size can be considered the first limitation. Although the dataset covers a broad range of firms operating in the Turkish automotive industry, the generalization of findings should only be possible through obtaining fresh evidence from other emerging markets that possess similar market characteristics to Turkey. The study's cross-sectional nature may offer insights only for a certain period; thus, additional longitudinal studies are recommended to see the dynamic changes in the constructs and relationships. Future studies may also include qualitative methods, i.e., interviews with top managers to understand how DC-MC interaction creates superior performance. Finally, firm performance was assessed based on the perception of managers. In other studies, objective performance criteria may be used, i.e., ROI, ROA, and profit figures for firm performance.

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Figure 1. The Conceptual Model

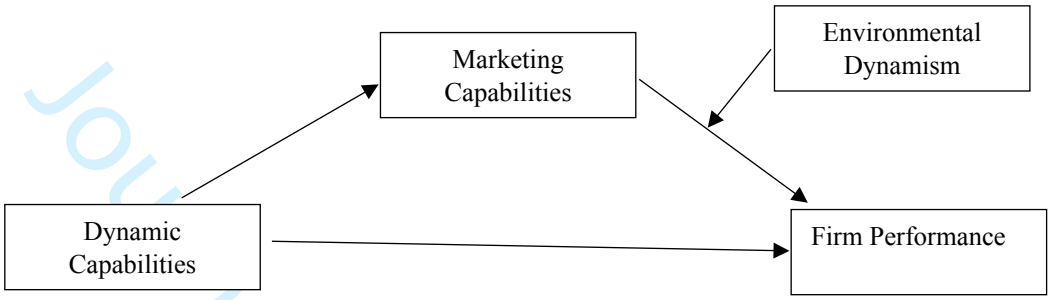

Table 1. Sample Composition

Firm Size	Firm Age (Years)	Position	Gender	Tenure (Years)
< 50 (13%)	5-10 (3.7%)	Director/Manager (77.2%)	Female (9.3%)	3-5 (2.5%)
50-100 (9.3%)	11-25 (19.1%)	CEO/GM (22.8%)	Male (90.7%)	6-10 (7.4%)
101-250 (32.7%)	26-50 (50%)			11-15 (13%)
251-500 (21.6%)	50+ (27.2%)			15+ (77.2%)
500+ (23.5%)				

Table 2. Inter-item correlation matrix

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	VIF
1.*Opportunity recognizing*	3.89	.62	(.509)														2.992
2. *Opportunity capitalizing*	3.80	.69	.779**	(.584)													2.873
3. Dynamic Capabilities	3.85	.61	.793**	.796*	(.532)												1.638
4. *Pricing*	3.88	.64	.448**	.375**	.439**	(.515)											1.329
5. *Product development*	4.11	.70	.570**	.578**	.608**	.359**	(.593)										1.574
6. *Channel management*	3.57	1.07	.232**	.281**	.270**	.363**	.370**	(.806)									1.371
7. *Marketing comm.*	3.09	.85	.326*	.285**	.325*	.307**	.306**	.409**	(.609)								1.492
8. *Marketing research*	3.96	.63	.712**	.651**	.724**	.420**	.558**	.301**	.504**	(.402)							1.861
9. *Marketing str. & impl.*	3.54	.78	.683**	.647**	.706**	.416**	.455**	.350**	.579**	.647**	(.641)						2.114
10. Marketing Capabilities	3.68	.56	.670**	.641**	.696**	.625**	.672**	.683**	.734**	.762**	.825*	(.598)					1.638
11. Environmental Dyn.	3.96	.73	.590**	.587**	.624**	.277*	.473**	.329**	.189*	.481**	.346**	.470**	(.579)				1.284
12. Firm Performance	3.55	.75	.466**	.355**	.439**	.404**	.261**	.205**	.243**	.364**	.336**	.406**	.206**	(.471)			1.250
13. Firm Age	33.62	31.49	.211**	.198*	.284**	.013	.342**	-.016	.118*	.247*	.186**	.293**	.176**	.301**	n/a		1.335
14. Firm Size	342.67	266.84	.268*	.227*	.316**	-.009	.213**	.068	.194**	.286*	.233**	.251**	.105**	.281**	..132**	n/a	1.449

Non-diagonal value: correlation

Diagonal value: AVE for the constructs

Sub-dimensions are shown in italics

*p<0.05; **p<0.01 (two tailed)

n/a: this item is not adaptive to analysis.

Table 3. Regression results for the mediation role of MC on the relationship between DC and firm performance

Variable	Model 1					Model 2				
	B	SE	β	t	p	*B*	SE	β	t	p
Constant	1.464	.342		4.282	.001	1.150	.373		3.081	.002
Firm age	.257	.094	.103	1.613	.001	.251	.092	.101	1.528	.001
Firms size	.282	.156	.117	1.778	.001	.279	.153	.109	1.704	.001
DC	.541	.088	.439	6.174	.001	.373	.121	.303	3.090	.002
MC						.261	.131	.195	1.993	.048
R^2	.192					.212				
Adj R^2	.187					.202				
SE	.684					.678				
ΔR^2 *(adjusted)*	-					.015				
F value change	38.118***					21.400***				

Dependent variable: Firm performance
***Significant at the .001 level

Table 4. Regression results for the moderation role of ED on the relationship between MC and firm performance

Variable	Model 1					Model 2				
	B	SE	β	t	p	*B*	SE	β	t	p
Constant	1.511	.359		4.149	.001	1.571	.394		3.990	.001
Firm age	.269	.095	.106	1.659	.001	.305	.125	.097	1.535	.001
Firm size	.274	.153	.119	1.743	.001	.327	.134	.102	1.611	.001
MC	.552	.096	.408	5.656	.001	.527	.172	.395	3.066	.003
MC x ED						.003	.025	.013	0.104	.918
R^2	.165					.164				
Adj R^2	.161					.160				
SE	.696					.698				
ΔR^2 *(adjusted)*	-					-				
F value change	31.562***					.011				

Dependent variable: Firm performance
***Significant at the .001 level

Table 5. Conditional process analysis: probing the interaction in a second-stage moderated mediation model predicting firm performance

Independent Variables	**Dependent Variables**									
	Mediator (M) (Marketing Capability)					Dependent Variable Y (Firm Performance)				
	b	SE	p	LLCI	ULCI	b	SE	p	LLCI	ULCI
Constant										
X	.6428	.0525	.0000	.5391	.7495	.4617	.1383	.0011	.1885	.7349
M	-	-	-	-	-	.2721	.1306	.0389	.0141	.5301
M x W	-	-	-	-	-	.0051	.0845	.9523	-.1629	.1720

Unstandardized regression coefficients reported, significance level ($p<0.05$). Bootstrap sample size =5000. LL, low limit; UL, upper limit; CI, confidence interval

APPENDIX:

EFA results of the DC dimension

Items (Our company…)	**F1:** Opportunity-recognizing (α= .930)	**F2:** Opportunity-capitalizing (α= .942)
DC5. Periodically monitors the possible effects of changes in the sector on customer preferences.	.808	
DC4. Quickly notices changes (technological, economic, legal etc.) in the industry.	.766	
DC3. Always follows competitors' actions against changing environment and developing technology.	.752	
DC6. Uses established processes to identify target market segments, changing customer needs, innovation and conditions.	.741	
DC1. Knows the best practices in the market.	.720	
DC2. Systematically searches for information on the current market situation.	.713	
DC7. Adapts best practices in the industry.	.695	
DC9. Develops new strategies in line with new information acquired in the market.	.622	
DC8. Develops new production methods suitable for changing technology.	.579	
DC10. Invests in technologies that find solutions to changing customer needs	.562	
DC13. Moves to a new or substantially changed organization structure.		.841
DC16. Implements new management methods.		.833
DC14. Implements new or substantially changed business models.		.827
DC15. Implements new or substantially changed company strategy.		.804
DC19. Implements new or substantially changed marketing strategies.		.728
DC18. Uses new or substantially changed production processes.		.723
DC12. Develops business models that answer discovered business opportunities.		.683
DC17. Our company implements new or substantially changed technological equipment to capture business opportunity.		.653
Kaiser-Meyer-Olkin Sampling Adequacy	.947	
Barlett's Test of Approx. Chi-Square Sphericity ***P< .001	2324.866***	
Overall reliability of the scale	α= .958	

EFA results of the MC dimension

Items	**F1:** Pricing (α= .771)	**F2:** Product development (α= .853)	**F3:** Channel management (α= .959)	**F4:** Marketing communication (α= .889)	**F5:** Marketing research (α= .803)	**F6:** Marketing strategy & implementation (α= .942)
MC2. Knowledge of competitors' pricing tactics.	.879					
MC4. Monitoring competitors' prices and price changes.	.783					
MC18. Gathering information about customers and competitors.	.615					
MC1. Using pricing skills and systems to respond quickly to market changes.	.547					
MC5. Ability to develop new products/services.		.846				
MC7. Successfully launching new products/services.		.793				
MC6. Test marketing of new products/services.		.742				
MC8. Ensuring that product/service development efforts are responsive to customer needs.		.692				
MC9. Strength of relationships with distributors.			.914			
MC11. Adding value to our distributors' businesses.			.906			
MC12. Providing high levels of service support to distributors.			.905			
MC10. Attracting and retaining the best distributors.			.866			
MC14. Developing and executing advertising programs.				.860		
MC13. Advertising management and creative skills.				.839		
MC15. Public relations skills.				.790		

MC16. Brand image management skills and processes.		.607		
MC17. Managing corporate image and reputation.			.720	
MC19. Using market research skills to develop effective marketing programs.			.613	
MC20. Tracking customer wants and needs.			.602	
MC21. Analyzing our market information.			.596	
MC27. Translating marketing strategies into action.				.849
MC26. Organizing to deliver marketing programs Effectively.				.841
MC25. Allocating marketing resources effectively.				.829
MC28. Monitoring marketing performance.				.795
MC24. Developing creative marketing strategies.				.756
MC23. Ability to effectively segment and target market.				.727
Kaiser-Meyer-Olkin Sampling Adequacy	.888			
Barlett's Test of Approx. Chi-Square Sphericity	3677.015***			
***P< .001				
Overall reliability of the scale	α= .921			

EFA results of the ED dimension

Items	**F1:** Environmental dynamism (α= .871)
ED1. Our operational environment changes slowly.	.784
ED2. In our field of business the life cycle of products is typically long.	.827
ED3 In our field of business customers' preferences are quite stable.	.778
ED4. Technological development offers remarkable possibilities in our field of business.	.757
ED5. The ability to operate quickly is crucial for success in our field of business.	.647
Kaiser-Meyer-Olkin Sampling Adequacy	.853
Barlett's Test of Approx. Chi-Square Sphericity	377.097***
***P< .001	
Overall reliability of the scale	α= .871

EFA results of the FP dimension

Items	**F1:** Firm performance (α= .713)
FP1. Higher growth in market share.	.673
FP2. Higher growth in profitability.	0.540
FP3. Higher growth in sales revenue.	0.818
Kaiser-Meyer-Olkin Sampling Adequacy	.650
Barlett's Test of Approx. Chi-Square Sphericity	96.168***
***P< .001	
Overall reliability of the scale	α= .713

Associate Editor Comments:
Area Editor
Comments to Author::

Thank you for your revisions to the manuscript to satisfy the concerns of the review team. While you have addressed most of the issues raised in the previous review, a few still remain. I agree with R1 that Hypothesis 1 makes no sense. It either needs to be contextualized (e.g., MC leads to better firm performance when .....) or completely dropped.

RESPONSE: Thank you for this constructive comment. To avoid offering a tautological argument, we completely dropped H1 and made necessary modifications accordingly throughout the manuscript.

In addition, H3 appears to be moderating the mediator rather than the main effect. I wonder if it is possible to rewrite the paper to better streamline the theorization. While the next version of the manuscript will not be sent back to reviewers, an editorial decision will be made based on your changes to address these final concerns.

RESPONSE: Thank you. We have adopted Hayes Process Macro Model 14 to test the moderated mediation effect in addition to the hierarchical regression analysis we have initially tested. However, the analysis result showed no statistically significant relationship. The changes implemented for the analysis and the results are highlighted in the manuscript and depicted in Tables 4 and 5.

Good luck!
PSA

Reviewer(s)' Comments to Author:
Reviewer: 1

Recommendation: Minor Revision

Comments:
The authors have made a good effort to improve the manuscript, following reviewers' comments.
I still believe though that the paper needs some improvements before it can be considered for publication.

First, I think the text needs some further proof-editing by an expert. For example, among others, it looks like verbs such as “mediated” and “were associated” in the abstract should be in the present tense, like the rest of the text in this part.

RESPONSE: Thank you for this comment. The language of the manuscript was checked by an expert and the problematic words were corrected.

In the introduction you refer to the automobile industry as “volatile”. I read the definition of volatile is the following: liable to change rapidly and unpredictably, especially for the worse. I don't think we can call the automobile industry volatile, unless we believe that it is possible that next year car production is suddenly and drastically reduced in a high percentage. If it requires a process of adaptation, probably uncertain, fast-changing or dynamic would be better.

RESPONSE: Thank you for this comment. We replaced the “volatile” word with dynamic throughout the manuscript and corrected the meanings where necessary.

Furthermore, I believe the introduction is too long and the authors could make further efforts to summarize it. Please notice that OEM is introduced before it is defined.

RESPONSE: Thank you for this comment. We shortened the introduction part (around one page). Furthermore, we constructed a new section as “the context” and moved there some material from the introduction and hypotheses development (the dropped H1 in particular) sections.

Finally, if you insist to keep H1, I think you should do more efforts to make it less tautological. You should argue on your null hypothesis, by pointing out that in some cases marketing capabilities might not positively influence firm performance (and finally conclude that in your industry and country context they will). Again, if as you appear to argue marketing capabilities would always, in any context and situation, contribute to firm performance, what is the point of testing this hypothesis?

RESPONSE: Thank you for this comment. We completely dropped H1 and made necessary modifications accordingly throughout the manuscript.

Good luck!