



Antecedents of market orientation: marketing CEOs, CMOs, and top management team marketing experience

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Abstract

While market orientation has been extensively studied, there is a dearth of research that empirically explores its antecedents, particularly those related to top management emphasis. This study integrates upper echelons theory and its behavioral integration perspective with the market orientation literature, to empirically investigate the impact of marketing representation in the top management team (TMT)—through CMO presence, and marketing experience of the CEO and the TMT—on market orientation. The results show that appointing a CEO with a marketing background is directly associated with increasing market orientation in the firm. While CMO presence is also hypothesized to make firms more market-oriented, such an effect is observed only at relatively high levels of marketing experience in the rest of the TMT. The study's results have important theoretical and practical implications for the market orientation, marketing organization, and TMT research streams.

Keywords Market orientation · Top management team emphasis · Chief marketing officer/CMO · Marketing organization · Upper echelons theory · Chief executive officer/CEO

1 Introduction

Market orientation has been one of the most frequently researched topics in the field of marketing organization (Kirca et al. 2005; Kumar et al. 2011; Moorman and Day 2016). This is not surprising given its role as “the organization culture that most effectively and efficiently creates the necessary behaviors for the creation of superior value for buyers” (Narver and Slater 1990, p. 21). Quite understandably, given market

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orientation's importance as a strategic construct intended to improve firm outcomes, the predominant focus in the academic literature has been on its consequences for firm performance; however, this focus on consequences has resulted in a limited understanding of the antecedents of market orientation (Kirca et al. 2005). In particular, even though “we know that leaders shape the culture” of organizations, few studies examine the role of the top management team (TMT) in driving market orientation (Moorman and Day 2016, p. 26). Still, among those that do, Kirca et al.'s (2005) meta-analysis finds strong support for a positive relationship between TMT emphasis and market orientation.¹ Gebhardt et al. (2006) also find that the senior leadership plays a key role in creating and emphasizing a market orientation, in their in-depth, longitudinal study of six firms involved in becoming market-oriented.

Nevertheless, the market orientation literature does not offer empirically backed theoretical insights into the TMT characteristics that lead to this emphasis placed by TMTs on market orientation. This is because TMT emphasis is typically measured as a perceptual construct that captures the extent to which top executives emphasize facets of being market-driven (Jaworski and Kohli 1993). Consequently, practical, TMT-level recommendations to make firms more market oriented do not go beyond the broad suggestion of increased TMT emphasis, to additionally offer specific solutions that can be implemented and made to “work in the organization” (Jaworski 2011, p. 214). This research gap is surprising given the strong evidence that top executives' characteristics, such as their backgrounds, influence their choices with respect to firm-level actions (Carpenter et al. 2004; Hambrick and Mason 1984). Coupled with the knowledge of TMT emphasis as an antecedent, this evidence suggests that the makeup of TMTs should matter to firms' levels of market orientation, with some TMTs emphasizing it more than others due to differences in their characteristics.

Our study aims to address this important gap in the market orientation literature. We merge the upper echelons literature (e.g., Hambrick and Mason 1984), with the research in marketing organization (Moorman and Day 2016), to propose that top executives' functional experience in marketing is a key TMT characteristic related to market orientation. Specifically, we expect that the emphasis on market orientation will be spearheaded by marketing chief executive officers (CEOs) and chief marketing officers (CMOs) (Nath and Mahajan 2011; Webster et al. 2003). Further, the literature on TMT behavioral integration and qualitative explorations in marketing suggest the need for a guiding coalition to maintain top-down-driven cultural facets like market orientation (Gebhardt et al. 2006; Hambrick 2007). We therefore also propose that marketing experience among other TMT members further enables this emphasis by marketing CEOs and CMOs (when present). Our findings offer mixed support for our expectations, suggesting two paths to a stronger TMT-driven market orientation: (1) a CEO with a marketing functional background and (2) a CMO *aided by* a greater concentration of TMT executives with experience in marketing.

To our knowledge, this study is the first to empirically examine the relationship between observable characteristics of TMT members and the firm's overall market

¹ Notably, and in line with our previous assertion related to the paucity of research on this antecedent, this result in their meta-analysis is based on just 13 effects, reported in only nine studies up until 2004 that explore this relationship. In going through the literature after 2004, we find only two more such studies, both reporting a similar positive effect.

orientation. As a result, our research makes the following contributions to theory and practice. First, we unpack TMT emphasis, a driver of market orientation, in terms of actionable TMT characteristics. In doing so, we address how one facet of marketing organization, namely, human capital at the level of the firm's leadership—in the form of TMT-based (marketing) characteristics—influences another element, i.e., culture, as represented by market orientation. Such an integrative approach is currently lacking in the literature on marketing organization (Moorman and Day 2016). Second, to the extent that we comprehensively capture marketing representation in the TMT—through CMO presence and marketing experience of the CEO and the TMT—we answer the call to explore “the extent to which marketing influence in the [TMT] affects...the development” of market orientation (Nath and Mahajan 2011, p. 75). Lastly, our work also addresses the need within the TMT literature for studies that provide insights into (functional) executives other than the CEO (such as the CMO) and the potential of the interfaces formed between various executives within the TMT (Menz 2012; Simsek et al. 2018).

2 Theory and hypothesis development

The accepted view on TMT-related antecedents of market orientation is that top executive commitment or emphasis “is an essential prerequisite” for firms to become market oriented (Kohli and Jaworski 1990, p. 7). In order to understand why TMTs might differ in such an emphasis, we turn to upper echelons theory, the dominant theoretical paradigm in TMT research. According to this theory, what top executives choose to emphasize or pay attention to is rarely driven by a “mechanical quest for economic optimization” (Hambrick and Mason 1984, p. 194); instead, bounded rationality causes these choices to be based on the “personalized interpretations” of these top executives, making it imperative to consider their cognitive mindsets “in order to understand why organizations do the things they do” (Hambrick 2007, p. 334). A large body of work within this literature has further established that these mindsets are strongly determined by executives' demographic characteristics (Carpenter et al. 2004). Thus, we can expect that differences in the demographic composition of TMTs cause variations in mindsets towards emphasizing or paying attention to market orientation, resulting in some firms becoming more market oriented than others (Feng et al. 2015).

While a number of demographic characteristics have been examined in this literature, the most frequently studied is the functional backgrounds of TMT executives (Cannella Jr et al. 2008). This is not surprising given the role that experience in a particular function has in creating and strengthening mindsets that are distinct from those of other functions (Hambrick and Mason 1984). Consequently, we expect marketing experience to be particularly germane to the context of our study, given that market orientation is predominantly based on a key building block of current marketing thought, namely, the marketing concept (Kohli and Jaworski 1990).

The marketing concept requires that firms identify and satisfy customer needs more effectively than their competitors. Accordingly, marketing concerns itself with interacting with customers, either directly or indirectly through intermediaries; monitoring competitive actions in the marketplace; and more broadly, spanning

the boundary between the environment and other (functional) units of the firm (Narver and Slater 1990). Thus, prior experience in marketing, more than any other function, should result in an executive mindset that is predisposed towards adopting a customer- and competitor-oriented culture that encourages inter-functional coordination, i.e., the defining facets of market orientation. Extant work suggesting that greater influence of marketing—and by extension the aforementioned mindset it represents—increases market orientation broadly supports this contention (Verhoef and Leeftang 2009).

While the preceding discussion points to top executives' marketing experience as the key characteristic to study for TMT-driven market orientation, the TMT literature advocates a nuanced or layered investigation of this perspective (Menz 2012; Simsek et al. 2018). Specifically, it suggests separating the effect of key executives such as the CEO, and functional heads such as the CMO—especially when the context of inquiry concerns functional experience related to these heads—from the rest of the TMT (cf. Boyd and Brown 2012; Nath and Mahajan 2017). Gebhardt et al.'s (2006) investigation of market orientation's evolution in firms is particularly informative in this context, since they find that such cultural transformations are "spearheaded" by "leaders" (p. 41) but need the support of a "guiding coalition" that inculcates "organization members with market-oriented values" (p. 51). Consequently, we propose that marketing experience in the TMT will be relevant in the form of (1) the presence of a CEO with a marketing background, (2) the presence of a CMO, and (3) the concentration of TMT members with functional marketing experience. In particular, as we argue subsequently, we expect that marketing CEOs and CMOs lead the emphasis on market orientation while a marketing-experienced TMT enables or amplifies their efforts.

First, consider CEOs with marketing experience. The communication and actions of the CEO drive the firm's culture and employees' attention, including that of the TMT, towards those activities that the he/she believes are vital for the survival and growth of the firm (Yadav et al. 2007). Consequently, we expect that the mindsets of CEOs with prior marketing experience will inculcate a market-oriented culture, as such CEOs emphasize the marketing concept. Previous research provides some support for this notion: Webster et al. (2003) find that marketing influence is greater in firms with a marketing CEO since such executives have a greater appreciation for what marketing brings to the table. Therefore, we hypothesize that:

H₁: The presence of a CEO with a marketing background is positively related to a firm's market orientation.

We also investigate marketing representation in the TMT in the form of CMO presence (Nath and Mahajan 2008; Germann et al. 2015). The CMO represents the "voice of the customer and market intelligence" in the firm's upper echelon (Jaworski 2011, p. 218). Consequently, as the firm's highest-ranking marketing executive, CMO presence signals the CEO's recognition of the importance of the marketing concept (Brower and Mahajan 2013). CMOs bring the resources and capabilities of the marketing function to the strategy table, providing them with the opportunity to guide the TMT, and through them the rest of the firm, towards a market-oriented culture (Nath and

Mahajan 2011). Some researchers have also suggested (albeit, not empirically validated) that CMO presence increases a firm's market orientation (Gilliatt and Cuming 1986). Thus, we hypothesize that:

H₂: CMO presence is positively related to a firm's market orientation.

Next, in considering the role of marketing experience in the rest of the TMT, we draw on upper echelons research related to behavioral integration, which is the “degree to which a TMT engages in mutual and collective interaction” (Hambrick 2007, p. 336). A key construct explored in this context is the TMT's homogeneity (or conversely, its diversity) on various demographic dimensions including that of functional experience (Cannella Jr et al. 2008). Specifically, this literature asserts the following beneficial outcomes from homogenous or shared functional backgrounds between TMT members: (1) reduced semantic gaps resulting in communication openness, quality, and speed, and improved integration of new information (Bunderson and Sutcliffe 2002) and (2) improved collaboration as a result of decreased stereotyping and functional group-based parochialism, which in turn decreases the likelihood of dysfunctional conflict and power struggles (Knight et al. 1999). These assertions lead us to expect that marketing experience in the TMT provides a fertile environment for marketing CEOs' and CMOs' efforts at driving a market orientation to take hold, as we elaborate next.

CEOs looking to cause firm-wide cultural shifts are largely dependent on the TMT to implement them throughout the organization as these executives channel their leader's signals to their own units and functions (Simsek et al. 2018). Consequently, and based on the preceding arguments of shared functional experience, marketing CEOs, who we proposed are drivers of market orientation, are more likely to find a willing TMT that will conduct and amplify their message, when their backgrounds are also in marketing. Therefore, we hypothesize the following moderating effect:

H₃: The positive relationship between the presence of a CEO with a marketing background and a firm's market orientation is strengthened as the amount of marketing experience in the rest of TMT increases.

CMOs, who we also proposed are drivers of market orientation, have operational control over the marketing function. However, while this may enable them to ensure that the marketing function adopts this cultural orientation, they may be even more reliant on the TMT than the CEO for their emphasis to have firm-wide effects (Nath and Mahajan 2011). As such, the CMO does not have supervisory power over the rest of the TMT and can only demonstrate the value of being market oriented through his/her own strategic contributions (Menz 2012). Consequently, the importance of shared backgrounds with the rest of the TMT, on account of the reasons mentioned under the rationale of behavioral integration, becomes even more important for the CMO's emphasis on market orientation to be translated into firm-wide market orientation. Therefore, we hypothesize the following moderating effect:

H₄: The positive relationship between CMO presence and a firm's market orientation is strengthened as the amount of marketing experience in the rest of TMT increases.

3 Methodology

3.1 Sample

Our sampling frame included 3000 of the largest public US firms in terms of market capitalization. Using public firms enables the collection of secondary data on firms' top executives from publicly available sources such as 10-Ks and annual reports. We dropped firms with missing data on key financial variables in Compustat, or with missing contact information for executives in the Dun and Bradstreet Million Dollar Database, resulting in a reduction of the sampling frame to 2168 firms, from which we randomly sampled 125 firms to collect survey data on market orientation. Telephone surveys were conducted by a market research agency, using a key informant approach, targeting executives with an advanced knowledge of and experience with the marketing strategies of the firm. Over 70% of these respondents were at the vice president level or higher, and more than 75% had been with their firm for at least 3 years. Our final sample of 117² firms is fairly representative of the sampling universe in terms of key firm-level measures such as revenue, profits, assets, and number of employees.

3.2 Measures

Our dependent variable uses Narver and Slater's (1990) conceptualization of market orientation as a summary construct made up of customer orientation, competitor orientation, and inter-functional coordination (please see Table 1 for the 14 individual items that were measured using surveys). In line with their approach, we average the scores on these 14 items to compute market orientation (coefficient alpha = .841).

The TMT-level variables were collected using publicly available sources (cf. Nath and Mahajan 2008). The TMT was identified as the executive officers listed in the 10-K, cross-checked with annual reports, which is the standard practice in research on top executives; we measured this in the fiscal year preceding the period of primary data collection. Following Nath and Mahajan (2008), marketing and marketing-related titles were used to identify CMO presence (CMO), which was coded as 1 if the firm had a CMO and 0 otherwise. To determine whether executives had marketing experience, we used a combination of sources, including the biographies listed in the 10-Ks, as well as Google and LinkedIn searches. The variable CEO with marketing experience (CEOMKT) was coded as 1 if the firm had a CEO with some marketing experience. Similarly, TMT marketing experience (TMTMKT) was the proportion of the TMT (excluding the CEO and the CMO) with marketing experience.

We also control for a number of variables that have previously been demonstrated to be related to market orientation (Kirca et al. 2005): firm size, measured as the log of firm assets; service vs. goods firm, following Srinivasan et al.'s (2011) classification approach using four-digit SICs; market share at the two-digit SIC level; and profitability, measured as net income by sales. In addition, we control for several characteristics

² We note that the final sample size of 117 is the result of dropping seven observations with incomplete responses to the market orientation survey and one extreme outlier. Our empirical results are unchanged if we include the outlier. The effective response rate for the survey was 44%, and tests for non-response bias comparing early vs. late of respondents (quartiles and terciles) indicate no significant differences between them with respect to key firm-level measures such as revenue, profits, assets, and number of employees.

Table 1 Market orientation survey items

Market orientation construct measurement items (Narver and Slater 1990) (coefficient $\alpha = .841$)

Customer orientation

Q1 Our business objectives are driven by customer satisfaction.

Q2 We monitor our level of commitment and orientation to serving customers' needs.

Q3 Our strategy for competitive advantage is based on our understanding of customers' needs.

Q4 Our business strategies are driven by our beliefs about how we can create greater value for customers.

Q5 We measure customer satisfaction systematically and frequently.

Q6 We give close attention to after-sales service.

Competitor orientation

Q7 Our salespeople share information within our business concerning competitors' strategies.

Q8 We respond to competitive actions that threaten us.

Q9 We target customers and customer groups where we have, or can develop, a competitive advantage.

Q10 The top management team regularly discusses competitors' strengths and strategies.

Inter-functional coordination

Q11 Our top managers from every function visit our current and prospective customers.

Q12 We communicate information about our successful and unsuccessful customer experiences across all business functions.

Q13 All of our business functions (e.g. Marketing/sales, manufacturing, R&D, finance/accounting, etc.) are integrated in serving the needs of our target markets.

Q14 All of our managers understand how everyone in our company can contribute to creating customer value.

of the members of the TMT that have been demonstrated to impact strategic outcomes (cf. Cannella Jr et al. 2008; Yadav et al. 2007): (logged) tenure of the CEO; a dummy for the CEO also being the chairman; and the proportions of the TMT with a post-graduate degree and with an MBA.

4 Analysis and results

Table 2 shows the summary statistics and inter-correlations of the measures we use in our study. The highest correlation is less than .5. Further, all variance inflation statistics in models without interactions are below 1.5, suggesting that multicollinearity is not a problem with our measures.

Table 3 shows the results of OLS regressions. The Controls model shows a significantly negative coefficient for TMT proportion with post-graduate education, which is typically in science/engineering, suggesting that “technology-driven” TMTs are not “market-driven” (Webster et al. 2003, p. 39). The Main effects model includes the independent variables, CEOMKT, CMO, and the moderator, TMTMKT, in addition to the controls. The results of this model, which tests H_1 and H_2 , show that H_1 , where we hypothesized that a marketing CEO will be associated with a stronger market orientation, is supported ($p < .05$). However, H_2 fails to receive support ($p > .10$) since the main effect of CMO presence is not significant.

The Moderations model tests H_3 and H_4 by adding the respective interaction terms CEOMKT_x_TMTMKT and CMO_x_TMTMKT, with TMTMKT being mean-

Table 2 Correlations and summary statistics

Variables	1	2	3	4	5	6	7	8	9	10	11	12
Correlations												
1 Market orientation	1.000											
2 CEO with marketing experience	0.197**	1.000										
3 CMO presence	0.009	-0.022	1.000									
4 TMT marketing experience	0.088	0.191**	0.055	1.000								
5 Firm size (log of assets)	-0.039	-0.064	0.018	-0.024	1.000							
6 Services (vs. goods) firm	0.090	0.026	-0.104	-0.183**	0.154*	1.000						
7 Firm market share	0.057	0.103	0.039	-0.017	0.171*	0.067	1.000					
8 Firm profitability	0.072	-0.010	0.146	0.016	0.430***	0.242***	0.037	1.000				
9 CEO tenure (logged)	0.082	-0.060	0.070	-0.068	-0.179*	0.045	0.048	-0.005	1.000			
10 CEO also chairman	-0.150	-0.043	0.043	0.027	0.139	0.026	0.124	-0.045	0.215**	1.000		
11 TMT proportion with post graduate education	-0.266***	0.015	-0.015	-0.186**	-0.083	-0.259***	0.058	-0.170*	0.011	0.023	1.000	
12 TMT proportion with MBA	0.039	-0.103	-0.198**	0.125	0.149	-0.118	-0.165*	0.034	-0.103	0.017	-0.095	1.000
Summary statistics												
Mean	3.743	0.197	0.325	0.171	9.372	0.496	0.013	0.030	0.853	0.521	0.148	0.290
Standard deviation	0.644	0.399	0.47	0.172	0.797	0.502	0.041	0.206	0.388	0.502	0.137	0.189

N = 117

* $p < .10$, ** $p < .05$, *** $p < .01$

Table 3 Estimation results from hypothesis tests

Dependent variable: market orientation	Controls	Main effects	Moderations
H ₁ : CEO with marketing experience (CEOMKT)		.316** (.151)	.248 (.151)
H ₂ : CMO presence (CMO)		.026 (.130)	-.007 (.127)
TMT marketing experience (TMTMKT)		.044 (.365)	-.740 (.449)
H ₃ : CEOMKT_x_TMTMKT			1.267 (.836)
H ₄ : CMO_x_TMTMKT			1.749** (.742)
Firm size	-.051 (.087)	-.034 (.087)	-.037 (.085)
Services (vs. goods) firm	.037 (.124)	.039 (.129)	.003 (.126)
Firm market share	1.639 (1.469)	1.294 (1.465)	1.309 (1.424)
Firm profitability	.112 (.326)	.083 (.329)	.147 (.321)
CEO tenure	.183 (.159)	.212 (.159)	.233 (.154)
CEO also chairman	-.221* (.123)	-.218* (.122)	-.215* (.119)
TMT proportion with post graduate education	-1.202*** (.444)	-1.188*** (.453)	-1.378*** (.446)
TMT proportion with MBA	.197 (.323)	.259 (.332)	.154 (.326)
Constant	4.255*** (.835)	3.983*** (.847)	4.067*** (.820)
Model R ²	.119	.157	.219
Model adjusted R ²	.054	.069	.121

Columns show coefficients with standard errors in parentheses

* $p < .10$, ** $p < .05$, *** $p < .01$

centered. Results of this model show that H₃, where we hypothesized that the effect of marketing CEO presence will be positively moderated by TMT marketing experience, is not supported ($p > .10$). However, a similar moderation of CMO presence is significant, in support of H₄ ($p < .05$), suggesting that CMO presence is associated with a stronger market orientation when TMT marketing experience is relatively high.

We plot the significant CMO_x_TMTMKT interaction of H₄ in Fig. 1. The four levels of TMTMKT in the figure—None, Moderate, High, and Very High—correspond to one standard deviation below the mean (which is equal to 0 for this measure in our

data), the mean, and one and two standard deviations above the mean, respectively. As Fig. 1 demonstrates, CMO presence is related to stronger market orientation as the proportion of the TMT with marketing experience increases: only the slopes representing high and very high TMTMKT are significant at $p < .10$ and $p < .05$, respectively.³

5 Discussion and implications

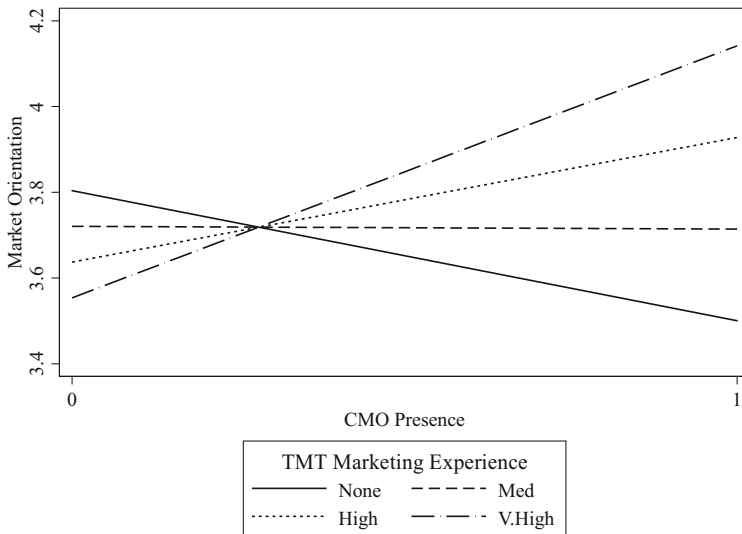
Despite the extensive empirical research on market orientation, there is a limited understanding of top management emphasis—a key antecedent of this important cultural orientation—in terms of the TMT characteristics that enable such an emphasis. Our research addresses this gap by drawing on the upper echelons and marketing organization literatures to posit that it is marketing representation in the TMT which enables this emphasis that leads to market orientation. Specifically, we find that such representation in the form of a CEO with marketing experience has a direct effect on market orientation (see Table 3 for results). A second notable finding is that CMO presence also increases market orientation, but only if there is a relatively high level of marketing experience in the rest of the TMT (see Fig. 1). These findings have important academic and managerial implications as we discuss next.

5.1 Academic implications

We make a unique contribution to the market orientation literature by applying the lens of upper echelons theory to explain why some TMTs would emphasize market orientation more than others. In doing so, we address Moorman and Day's (2016) call for research in marketing organization that “deeply considers” how human capital—as denoted by marketing representation in TMTs—and cultural elements such as market orientation “influence one another” (p. 26). In fact, our study directly addresses one of their suggested approaches for research in this area, namely, that of treating “[m]arketing leaders [as] integrating agents that facilitate...the cultivation of cultural values” (p. 26).

Upper echelons theory predicts that functional backgrounds create mindsets that affect what top executives pay attention to, and the choices they make. Consequently, since functional experience in marketing entails embracing the marketing concept that is the foundation for market orientation, we hypothesized that the presence of a marketing CEO (H_1) and a CMO (H_2) would each have a positive main effect on market orientation. We additionally invoked the behavioral integration perspective to

³ Our significant moderation/interaction (H_4), i.e., CMO_x_TMTMKT, remains significant if we use an alternate measure of TMTMKT, namely, the proportion of the TMT with (a threshold of) at least five years of marketing experience. When we compute TMTMKT using the total years of marketing in the TMT as a proportion of the total years of experience in the TMT, this interaction remains significant, but becomes weaker ($p < .10$). The CEOMKT effect also remains significant if we use the number of years in marketing instead of a marketing CEO dummy, but it becomes similarly weak. However, it is worth noting that with these alternative specifications using years of marketing experience, executives who possess marketing experience, but for whom the number of years with such experience is not available, get dropped in computing TMT marketing experience. We thank an anonymous reviewer for suggesting these alternate specifications.



The graph uses the results from the Moderations model in Table 3 where TMT Marketing Experience is mean-centered; its raw value ranges from 0 to 0.67.

Fig. 1 Moderation of CMO presence by TMT marketing experience

posit that marketing experience in the rest of the TMT enables each of these executives' efforts, suggesting moderation effects (H_3 and H_4 , respectively).

While we find support for these theoretical propositions, we do so only for one of each of our hypothesized main and moderation effects, i.e., H_1 and H_4 , respectively. In order to shed further light on this mixed evidence, we ran separate models using customer orientation, competitor orientation, and inter-functional coordination, i.e., the dimensions of market orientation, as outcomes.⁴ Interestingly, we find a significant positive interaction of marketing CEO presence with TMT marketing experience in line with H_3 , albeit, only with inter-functional coordination. Further, the significant main effect of marketing CEO presence, again, only with this outcome, continues to be positive in the moderated model. Taken together, these post hoc results, along with our focal results in Table 3 for this variable, demonstrate that (marketing) CEOs as the heads of the firm/TMT do not need TMT marketing experience to drive a market orientation per se, perhaps because they have sufficient power to implement their agenda independently (Menz 2012)⁵; however, they also demonstrate that by virtue of shared mindsets, such experience in the TMT can make this task easier for marketing CEOs. That these post hoc effects were significant only for inter-functional coordination also suggests that the (marketing) CEO's impact on market orientation is primarily

⁴ We do not report these results in detail, in the interest of space. We also note that, in other analyses not reported here, our focal results reported in Table 3 also hold if we use a factor score for market orientation—calculated using the means of these three dimensions—instead of the mean of all items used in Table 3's results.

⁵ We would like to thank an anonymous reviewer for this suggestion.

one of emphasizing a cultural mindset of inter-functional coordination (in customer- and competitor-driven efforts) across the firm.

Further, in these post hoc analyses, similar to our focal results in Table 3, CMO presence continues to be non-significant by itself, but positively moderated by TMT marketing experience, albeit weakly, for each of the three dimensions. Thus, unlike CEOs, CMOs do seem to need the support of the TMT to drive market orientation, perhaps due to insufficient power of the CMO as a functional TMT member (Menz 2012), which is more likely with relatively high TMT marketing experience. These results, in combination with the aforementioned post hoc result that marketing CEO presence does not directly (or conditionally) affect customer or competitor orientation, also suggest that these two market-spanning dimensions of market orientation may require the dedicated attention of a TMT executive, such as the CMO.

Our study also responds to the calls in the literature to explore the extent to which marketing influence in the TMT affects market orientation (Nath and Mahajan 2011). Prior research has been inconclusive in this regard (Verhoef and Leeflang 2009). To the extent that marketing CEO presence, CMO presence, and TMT marketing experience capture such influence, our study demonstrates that it is indeed distinctly related to market orientation (Feng et al. 2015). However, the implications are nuanced. Consistent with prior suggestions in the literature, we find that marketing CEO presence has a direct relationship (Webster et al. 2003). However, in contrast to propositions that CMO presence may be an independent driver of market orientation (Germann et al. 2015; Nath and Mahajan 2011), we only find evidence of a conditional relationship that depends on marketing experience in the rest of the TMT.

Lastly, in finding significant effects with our nuanced operationalization that separates TMT marketing experience into the components we study, we address the need in the TMT literature for research that looks beyond the entire TMT as a unit of analysis, to interfaces within the TMT (Simsek et al. 2018).⁶ Furthermore, our findings show that not all such interfaces are the same, since the CEO-TMT interface does not matter as much to an outcome such as market orientation as much as the CMO-TMT interface, when these interfaces are contextualized within the dimension of marketing experience. As such, by focusing on functional marketing experience and the CMO, we also answer the call for research on functional executives in the TMT (Menz 2012).

5.2 Managerial implications

Our study has important implications for CEOs and executive boards. The results suggest that the functional backgrounds and structural composition of the TMT must be considered as part of the efforts made towards implementing a market orientation. Clearly, appointing a CEO with a marketing background has a direct impact on such efforts. Anyone who has such functional experience while also holding the apical position of the firm has a strong influence in instilling a market-oriented culture that is founded on the marketing concept.

⁶ In further support of our claim regarding the importance of separating TMT effects, we note that in results not reported here, we find that a variable computed with the proportion of all TMT executives with marketing experience, including marketing CEOs and CMOs when present, does not significantly predict market orientation.

Conversely, having the same expectations from the CMO may be unrealistic. CMOs often face high turnover, partly as a result of being placed in situations where their “credibility and legitimacy with other company ‘chieftains’ is absent” (Kerin 2005, p. 12). Our results suggest that to improve the chances of a CMO’s success, especially with regard to creating a market orientation, it is critical that other members of the TMT also have marketing experience. Having shared mental maps with other TMT executives is likely to help prevent the common situation in which “a CMO has to spend too much time selling ideas, objectives and strategy internally” (McGovern and Quelch 2004, p. 4).

5.3 Limitations/future research

One limitation of our study is the cross-sectional nature of our data, a common feature of the market orientation literature (cf. Kumar et al. 2011). While we cannot completely rule out reverse causality, to address concerns about it with respect to the significant main effect of the presence of a CEO with marketing experience on market orientation, we collected data on CEO turnover in the years following our survey to examine whether market-oriented firms were more likely to appoint a marketing CEO.⁷ We find no significant correlation between market orientation and such an appointment, for either the sample as a whole or within the subsample of firms that experienced CEO turnover, demonstrating that a key result of our study does not suffer from reverse causality. Further, we find that there are neither direct effects of CMO presence nor TMT marketing experience as independent drivers of market orientation, thus significantly mitigating concerns about reverse causality with these measures. However, it should be noted that we are unable to completely rule out this possibility given the cross-sectional nature of our data.⁸ While outside the scope of the present study, there are undoubtedly dynamic relationships between CEO and TMT characteristics and market orientation over time that are worthy of investigation. Thus, we echo the calls in the literature for future empirical, longitudinal explorations of the antecedents of market orientation that allow for such dynamic relationships to be studied, perhaps using letters to shareholders to measure market orientation (cf. Feng et al. 2015; Noble et al. 2002).

Such efforts could also generate larger samples, resulting in the ability to test a broader range of potential relationships to improve the explanatory power and representativeness of our results, both of which are limitations of the present study given its sample size of 117 firms. Developments in upper echelons theory and the market orientation literature provide some direction on relationships worth investigating. For example, a number of environmental (e.g., industry growth; market or technological turbulence), organizational (e.g., B2B vs. B2C customer base; customer power; services vs. goods-orientation; board oversight and governance mechanisms), and institutional (e.g., societal context; regulatory and public pressures) characteristics have been identified in past work that have significant impacts on the discretion and strategic

⁷ Briefly summarized, we find that of the 117 firms in our sample, 44 experienced CEO turnover in the years 2014–2018, and of CEOs appointed as successors, 17 had a marketing functional background.

⁸ We thank an anonymous reviewer for suggesting this limitation.

latitude of TMT members and their ability and freedom to make decisions, which may be important mediators and moderators of the relationship between TMT characteristics and observed market orientation (Boyd et al. 2010; Greening and Gray 1994; Homburg et al. 1999).

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