Impact of relative compensation to executive directors with marketing experience on marketing performance: Towards an integrative framework

Purpose – This paper combines the agency theory and efficiency wage theory to explore the effects of relative compensation for executive directors with marketing experience on two marketing outcomes (marketing efficiency and market share) and the moderating roles of ownership type (private vs. state-owned enterprises) and market concentration in this process.

Methodology – 2,753 firm-year observations from Chinese listed companies (from 2010 to 2014) were retrieved from China Stock Market and Accounting Research (CSMAR) database and analysed using firm random-effects with industry, year, and region fixed effects.

Findings – Relative compensation has a positive effect on both marketing efficiency and market share, and these effects are moderated by ownership type and market concentration. Specifically, the positive effect of relative compensation on marketing efficiency and market share are stronger for central state-owned enterprises (SOEs) compared to local SOEs and private-owned enterprises (POEs) but the results are mixed for market concentration.

Research limitations/implications – This study shows that paying higher compensation to the executive directors with marketing experience can enhance marketing performance, but the data does not allow identification of the actual actions taken by these directors for this.

Practical implications: This study highlights the importance of appropriate compensation for directors with marketing experience to motivate them to make better marketing decisions to overcome the challenges posed by market concentration and agency conflicts.

Originality/value – This paper point outs the importance of having directors with marketing experience and paying them suitable compensation to motivate them to be more effective.

Keywords – market share; marketing efficiency; private vs. state ownership; market concentration; relative compensation

Introduction

Past research explores the impact of Chief Marketing Officers (CMOs) on firm performance (e.g., Nath and Mahajan, 2008; Germann *et al*., 2015) and the consequences of marketing expertise at the top management team (TMT) level (Weinzimmer *et al.,* 2003). However, marketing expertise of other board members is rarely investigated (Whitler and Puto, 2020) despite even those board members not specifically responsible for marketing function, still have a legal and fiduciary duty to direct and oversee the operations (including the marketing aspects of operations), so as to protect the shareholders' interests (Whitler *et al*., 2021). In this context, past studies indicate that marketing knowledge and experience at different levels of organizational hierarchy may not be equally impactful (Whitler *et al*., 2021).

For instance, while Nath and Mahajan (2008) and Germann *et al*. (2015) find that the presence of CMO (i.e., marketing expertise at the TMT level) does not affect sales growth, Whitler *et al*. (2018) report that marketing knowledge and skill at the board level does affect firm performance. In this context, Whitler *et al*. (2018) show that the number of directors with executive-level marketing experience is positively associated with revenue growth. The study further reports that the positive effects are stronger for firms with more marketing board interlocks and firms in which the CEOs are also the board chairpersons. Properly designed board structure can enhance the positive impacts of marketing experience at the board level. Thus, compensation is another governance mechanism that can be used to improve work motivation, performance, and outcomes (Jensen and Meckling, 1976).

Marketing research on compensation at the TMT level is emerging (Appendix I). Appendix I shows that previous compensation studies in the marketing domain can be categorized into two streams: (i) the studies which focus on CMOs and (ii) the studies which do not consider whether an executive has marketing knowledge and experience or not (e.g.,

those studies which examine CEOs or TMTs in general). In both streams, most studies investigate the roles of equity compensation as a motivating tool to enhance performance among US companies. These studies mainly explore the impact of CMO compensation on firm performance without accounting for organization types and competitive environment in which they operate, which limits the practical implications of their findings. We identify many gaps in this research, including (i) studying marketing expertise at the board level rather than at the TMT level, (ii) investigating an incentivisation tool other than equity compensation, (iii) studying the moderating roles of organization types and competitive environment, and (iv) analysing non-US data. Addressing these gaps is important to provide marketing scholars and practitioners a more complete understanding of the process by which the marketing experience of executive directors may influence firm performance for different types of firms operating under varying competitive conditions around the world. This paper addresses these gaps by developing an integrative conceptual model to explore the impact of relative compensation (ratio of average compensation for executive directors with marketing experience to the industry average compensation for directors with similar profile) on two key outcome metrics (marketing efficiency and market share).

Our choices of metrics are supported by survey data. In a survey of CMOs in USA, UK, France, Germany, and Japan, Barwise and Farley (2004) reports that market share ranks the first (79%) among the metrics regularly reported to boards of directors.[1] A survey of marketing executives by Mintz *et al*. (2021) shows that the top three most used metrics in China are sales target (in units or in dollar) (61%), product/brand satisfaction (60%), and market share (51%). Accordingly, market share is investigated in this China-based study. We also include a financial metric (marketing efficiency) to complement a marketing metric

[1] Market share ranks ahead of perceived product/service quality (77%), customer loyalty/retention (64%), customer profitability (64%), relative price (63%), and customer lifetime value (40%), respectively.

(market share) because financial metrics can be used to justify marketing decisions and establish marketing status to non-marketing directors and executives (Lehmann, 2004). Mintz *et al*. (2021) report that across the 16 countries surveyed, the top three most used metrics in managerial decision making are product/brand satisfaction (53%), product/brand awareness (45%), and ROI (43%). We note that metrics such as satisfaction, awareness or internal sales target are often not publicly disclosed and they may not be measured in a standardized manner to allow meaningful comparison across the companies. Therefore, our study includes the popular metrics which can be calculated based on publicly disclosed information – market share and marketing efficiency (ROI).

This study contributes to the marketing literature in the following ways. First, our study focuses on marketing expertise at the board level, which complement prior research on marketing expertise at the TMT level. Second, we consider the use of pay premium as an alternative to equity compensation. We examine if paying higher compensation relative to the industry can motivate directors with marketing experience to make greater contribution to their companies. Third, we look beyond performance measures commonly used in previous compensation studies such as accounting profit and shareholder return (Appendix I), using two measures of marketing outcomes, namely market share and marketing efficiency (ratio of sales to marketing expenditure). Fourth, we study the boundary conditions of the direct link between relative compensation and marketing outcomes by testing the moderating effects of ownership type (private vs. central or local state-owned enterprises) and market concentration. Finally, we use China as our research setting, to acknowledge its growing importance in the global economy, and to extend this field of research beyond USA.

Data from 2,753 firm-year observations of Chinese listed companies during the 2010-14 period shows that relative compensation to the directors with marketing experience has a positive effect on both market share and marketing efficiency and these effects are moderated

by ownership type and market concentration. Specifically, the positive effects of relative compensation on market share and marketing efficiency are stronger for state-owned enterprises (SOEs) controlled by the central government (central SOEs), compared to SOEs controlled by the local government (local SOEs) and private-owned enterprises (POEs). Market concentration intensifies the effect of relative compensation on market share, but weakens such effect on marketing efficiency. Our study shows that not only the marketing expertise at the TMT level, the marketing experience at the board level also matters, especially when directors with marketing experience are compensated appropriately, taking into account of the organizational and environmental factors such as ownership type and market concentration.

Theoretical background and hypotheses

Board of directors, marketing experience, and market share

A board of directors is the top decision-making body in a company, with legal right and fiduciary duty to oversee and direct the business in the interest of the shareholders (Bommaraju *et al*., 2019). The decisions made include those related to company policy and strategy; major expenditures, resource allocation, and acquisitions; selection, evaluation, and compensation of top management; and nomination of board members (Whitler and Puto, 2020). Through the content and process of board meetings, board members contribute to their companies by providing human and social capital and by monitoring and governing the TMT (Whitler and Puto, 2020). Boards of directors perform three main roles (Johnson *et al*., 1996; Sun *et al*., 2020), including 1) control (control the TMT activities to protect shareholders' interests and resolving agency conflicts within the company), 2) service (provide advice and counsel to TMT and formulating firm strategies), and 3) resource dependence (provide resources critical to firm's success or facilitating access to such resources).

Boards of directors can affect marketing outcomes through their counsel and decisions on corporate goals and directions, firm strategy, and the performance measures for which the boards hold TMT accountable (Johnson *et al*., 1996; Whitler and Puto, 2020). Because future cash flow and shareholders' wealth depend upon market performance, board members are interested in directing the marketing functions effectively (Sun *et al*., 2020). Marketing research on boards of directors is still very limited (Whitler and Puto, 2020; Bommaraju *et al*., 2019). For example, Srinivasan *et al*. (2018) find that director networking via board interlock can provide firms with access to market intelligence, which then leads to more new product introductions. Bommaraju *et al*. (2019) show that the customer representation in a board is positively related to B2B firm performance, especially when demand uncertainty is high and when a firm is less diversified. Sun *et al*. (2020) find that board diversity increases firm's marketing capability. Korenkiewicz and Maennig (2022) report positive relationship between the number and the proportion of female directors in a board and customer satisfaction. In a survey of female customers, marketing effectiveness is found to be higher in a firm with a more gender diverse board of directors (Mugwati & Bakunda, 2019).

Whitler *et al*. (2018) extend this branch of literature by examining the impacts of marketing expertise at the board level. Following Hambrick and Mason (1984), the authors note the difference between directors with output functional tracks and those with throughput functional tracks. While throughput functions such as accounting, productions, and process engineering inwardly focus on efficiency, output functions such as sales and marketing outwardly focus on demand-increasing opportunities and growth. While directors with throughput functional experience tend to adopt throughput strategies such as cost saving and automation, directors with output functional experience are likely to adopt output strategies such as product innovation and advertising (Hambrick and Mason, 1984). Accordingly, Whitler *et al*. (2018) anticipate that directors with marketing experience will emphasize

demand, growth, and marketing strategies. Based on the data from S&P 1500 companies, the authors find that the presence of a marketing-experienced director in a board is positively associated with revenue growth.

Overall, previous research shows that director's characteristics influence marketing capabilities (Sun *et al*., 2020), marketing tactical actions such as new product introduction (e.g., Srinivasan *et al*., 2018), and customer impacts such as customer satisfaction (e.g., Korenkiewicz and Maennig, 2022). The marketing capabilities, marketing tactical actions, and customer impacts are expected to lead to changes in market position such as sales and market share, which will then affect the financial position and firm value (Rust *et al*., 2004; Angulo-Ruiz *et al*., 2014). Among director's characteristics, director's marketing experience is found to improve sales growth (Whitler *et al*., 2018). In line with Whitler *et al*. (2018), we expect director's marketing experience to enhance market share.

It should be noted that Whitler *et al*. (2018) simply show that firms with marketing expertise at the board level tend to have higher revenue growth. The results do not rule out the possibility that directors with marketing experience will collaborate with other throughput-experienced directors to improve other aspects of performance. As noted by Whitler *et al*. (2018), the roles of marketing expertise at the TMT level and at the board level tend to be different. While a TMT is responsible for the operations and outcome within one's domain, a board makes a decision considering a whole company collectively. As a result, while executive's marketing expertise may likely be channelled toward improving market performance, director's marketing experience may be utilized more broadly to improve both output-related and throughput-related outcomes, as discussed below.

Board of directors, marketing experience, and marketing efficiency

Complementing marketing research which reports significant relationships between board

characteristics and output-related outcomes, finance research shows that board characteristics affect efficiency (the capability to produce the same outputs from lower input costs or to produce more outputs from the same input costs). Tanna *et al*. (2011), for instance, find that a bank with a larger board or a board with greater proportion of non-executive directors has higher cost efficiency, i.e., it can generate the same level of output (services provided) with the lower input costs. Kader *et al*. (2014) provide evidence from the insurance industry in 17 Islamic countries. Non-executive directors are found to improve cost efficiency in an insurance company with a large board of directors. Dong *et al*. (2017) show that adding more female and foreign directors to a board can help improve cost efficiency in Chinese banks. Based on data from banks in 5 ASEAN countries, proportion of female directors and independent directors in a board interact to increase cost efficiency (Ramly *et al*., 2017).

In addition to board size, independence, and gender diversity, director's functional background can affect efficiency (Hambrick and Mason, 1984). Board seats have traditionally been occupied by directors from throughput functions, with minimal board seats occupied by those with marketing experience (Whitler *et al*., 2018). Adding marketing expertise in a board is expected to be beneficial. Reimer *et al*. (2018) show that TMT's throughput-oriented experience and CEO's output-oriented expertise interact to determine aspects of corporate performance. In particular, TMT's throughput expertise appears to enhance CEO's output expertise to improve the output-related outcomes such as product innovation and product quality. This suggests, vice versa, that output-related experience can complement throughput capabilities to improve the throughput-related outcomes such as cost efficiency. Output-experienced directors can collaborate with throughput-experienced directors to improve aspects of performance beyond market performance. Accordingly, we expect a director with marketing experience to help improve the efficiency of decision-making (e.g., marketing efficiency) related to the director's own functional experience.

Relative compensation and marketing outcomes

In the marketing context, previous research on the performance effects of marketing expertise at the TMT level has shown mixed results, with some studies reporting positive impacts (e.g., Boyd *et al.,* 2010; Germann *et al.,* 2015), no significant effects (e.g., Nath and Mahajan, 2008), and even negative impacts on marketing outcomes and firm performance in certain situations (Nath and Mahajan, 2011). The inconclusive findings suggest that the presence of marketing expertise alone may not be enough. In this context, agency theory (Jensen and Meckling, 1976) may explain why the existence of marketing expertise within an organization may not always generate better outcomes.

Agency theory describes the agency relationship as the one in which one party (the principal, such as shareholders or employers) delegates a certain task to another party (the agent, such as directors and employees). As Bergen *et al.* (1992) suggest, agency relationships are pervasive throughout an organizational hierarchy; shareholders delegate oversight over a company to a board of directors; a board of directors delegates control over the company to a CEO; a CEO delegates decision making authority over the marketing functions to marketing executives who in turn delegate operational marketing tasks to salesforce, agencies, sub-contractors, and channel partners. Noting that human being are self-serving, agency theory suggests that agent may not necessarily behave in the best interest of the principal (Eisenhardt, 1989). For example, a director may shirk and act as a rubber stamp instead of diligently spending time and effort to monitor and counsel the TMT. A marketing manager may choose an advertising agency based on personal relationships, or even bribes, rather than spending time and effort to find the most effective and efficient one.

To overcome the above problem, agency theorists argue that compensation contracts should be designed to align the interests of the principal and the agent. In the US, this is commonly achieved by using equity-based compensation such as stocks and options (Jensen

and Meckling, 1976). In China, however, regulatory barriers discourage the use of equity-based compensation (Cheng *et al.,* 2015). Hence, companies need to find other ways to incentivize employees. In this context, past research on *efficiency wage theory* suggests using pay premium (high compensation relative to the norm) as an incentive, because employees may perceive this as a kind gesture from their employers and they tend to reciprocate with extra effort, dedication, and loyalty (Akerlof, 1982).

By offering the pay premium, the employer shows that she trusts the employee (Dodlova and Yudkevich, 2009). The feeling of being trust increases organizational citizenship behaviour such as work dedication above the norm and willingness to go out of the way to help other colleagues (Lau *et al*. 2014). Perceived as a gift, the pay premium can elicit employee's desire to reciprocate with more organizational citizenship behaviour (Dodlova and Yudkevich, 2009). Pay premium therefore is expected to incentivize directors with marketing experience to work devotedly to improve output-related outcomes such as market share and to help other throughput-experienced directors improve throughput-related outcomes such as marketing efficiency. In line with agency and efficiency wage theories, we expect firms which offer higher relative compensation (compared to the industry average) to directors with marketing experience will have higher market share and greater marketing efficiency. Accordingly, we hypothesize:

H1a: Relative compensation has a positive effect on marketing efficiency.

H1b: Relative compensation has a positive effect on market share.

Moderating effects of ownership type

Firms vary in the degree to which the principals and agents deviate from the optimal courses of actions and in the magnitude of agency costs associated with such deviations (e.g., Jensen and Meckling, 1976). Compared to private ownership, state ownership is linked to more

severe agency problems (e.g., Fang *et al.,* 2018). In addition to the principal-agent agency problems between the principal (shareholders) and the agent (directors and managers) described above, SOEs suffer from the principal-principal agency problems between state shareholders who prioritize social and political goals and non-state shareholders who prioritize economic goals (Goldeng *et al.,* 2008).

Government ownership and associated agency goal conflicts can weaken marketing outcomes (Li *et al*., 2006). First, SOEs are often assigned political and social goals; these non-economic goals can restrict SOE's ability to respond to the market. Second, with close relationships with the government, SOEs tend to respond to the government's demands rather than the market's demands. Not surprisingly, the authors find that government interference in innovation, production, pricing, distribution, and marketing styles reduces market orientation. Market orientation is found to improve customer satisfaction and customer retention (Qu and Ennew, 2003). In the chain of marketing productivity, these positive customer impacts can lead to enhancement in marketing assets and better market position (Rust *et al*., 2004). As such, weaker market orientation caused by state ownership can result in weaker market position (e.g., lower sales and lower market share).

Another feature of state ownership is soft budget constraints and government bailouts. With soft budget constraints and helping hand from governments (Li and Xia, 2008), state ownership is criticized for weak incentives to reduce costs and innovate (Shleifer, 1998). In addition, internal control and monitoring systems tend to be ineffective in SOEs (Li and Xia, 2008) while external monitoring mechanisms such as regulators tend to be more lenient towards SOEs (Wu *et al.,* 2016). With weaker motivation to save costs and weaker control systems to prevent wasteful spending, marketing efficiency is likely lower in SOEs.

Previous research show that properly designed compensation is more beneficial in firms with more severe agency conflicts (e.g., Chi and Lee, 2010). Accordingly, we expect relative

pay to be more useful in improving market share and marketing efficiency in SOEs than in POEs. Among SOEs, the severity of agency conflicts varies.

SOEs in China can be categorized into those affiliated with the central government agencies (central SOEs) and those associated with the local government agencies (local SOEs). Between the two, central SOEs naturally have closer relationships with the central government. The closer relationship suggests that central SOEs can have better access to the central government's helping hand and resources, softer budget constraints, greater tendency to prioritize political goals above economic goals to maintain good relationship with the central government. Kong *et al*. (2017) note that "central SOEs have a reputation as "the republic's eldest son" because the belief is that these enterprises benefit most from the presence of government shareholders and government-affiliated directors" (p. 191). Hence,

H2a: The positive effect of relative compensation on marketing efficiency is stronger for central SOEs compared to local SOEs and POEs.

H2b: The positive effect of relative compensation on market share is stronger for central SOEs compared to local SOEs and POEs.

Moderating effect of market concentration

Market concentration is defined as the extent to which a small number of firms dominate an industry by accounting for a large proportion of its output and revenues (Vaid *et al*., 2020). Market concentration within an industry reduces competition and maximises the firms' ability to specialise in their chosen line of business, thus allowing them to dominate their target markets (Deloitte, 2019). Market concentration insulates firms from environmental uncertainty and structural changes (Aaker, 2009; Auh and Menguc, 2005) but a market with high competition is characterized by firm's lower power to control the market and constant need to change its strategy in response to the competitor's actions (Sun *et al*., 2020).

Intense competition can be harmful to market position and efficiency. With more competitors, there are plenty of alternatives in the market and it may be more difficult to retain customers and maintain the market position (market share). Not surprisingly, sales growth tends to be lower in a market with more intense competition (Bahadir *et al*., 2009). Also, in a highly competitive market, firms need to constantly respond to competitors' moves; they often need to deviate from the best strategic route and develop a new set of activities, or even engage in costly activities unwillingly, which can lead to resources being wasted and lower marketing efficiency (Sun *et al*., 2020). Therefore, to survive and thrive, firms need to both (i) improve efficiency and (ii) explore opportunities and innovate to find new ways to compete and enhance its market position (Auh and Menguc, 2005).

Liu *et al*. (2018) shows that while competition is harmful to firm performance, governance mechanisms such as board governance can alleviate the negative impacts of competition on firm performance. In addition to board governance, compensation is another governance tool which is often used to deal with hostile environment (e.g., Cuñat and Guadalupe, 2009). It is, however, unclear, whether incentive compensation should be used more or less in firms facing intense competition. On the one hand, firms are shown to increase the use of high-power incentives such as options after a series of deregulation lower entry barriers and increase competition intensity in the bank and finance industry (Cuñat and Guadalupe, 2009). With intense competition, the agent's effort to improve efficiency and market position becomes more valuable and the principal should use more high-power incentives to elicit greater work effort from the agent (Alexander and Zhou, 1995). Based on this line of research, as competition becomes less intense and the market is more concentrated, incentive pay is less useful.

On the other hand, Fernandes et al. (2018) document less use of incentive pay after entry deregulation increases market competition. With fierce competition, a firm may not

survive if its executives and directors shirk. Product market competition and incentive pay are arguably substitutes; both can be used to motivate employees to work diligently (e.g., Hart, 1983). When the market competition increases, incentive pay becomes redundant. In this line of reasoning, as competition becomes less intense and the market is more concentrated, incentive pay is more useful. Based on this line of reasoning, we hypothesize:

H3a: The positive effect of relative compensation on marketing efficiency is stronger under high market concentration.

H3b: The positive effect of relative compensation on market share is stronger under high market concentration.

Marketing efficiency and market share

Marketing activities can be categorized into two broad types: (i) exploitative activities (such as redefining the process, resources, and capabilities) to improve efficiency and (ii) explorative activities (such as exploring new opportunities and innovating) to find new ways to compete and improve the market position (Auh and Menguc, 2005). While explorative activities can enhance market positions, these consume scarce financial resources, which can dampen short-term performance or even reduce the survival prospect in the short run, and often involve considerable risk of failure (Lavie *et al*., 2010). Lack of financial slack thus prevent firms from engaging in explorative activities (Li and Wang, 2019). Financial resources gathered from exploitative initiatives and increased efficiency can be used to support explorative activities (Chen and Katila, 2008). In marketing context, we anticipate that financial resources obtained from improved marketing efficiency can be used in explorative activities to enhance market position and increase market shares. We thus hypothesize that greater marketing efficiency can lead to higher future market share.

H4: Marketing efficiency has a positive effect on future market share.

Figure 1 shows the conceptual model with all the hypotheses.

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Methodology

Research setting

This paper uses China as its research setting because in addition to the regulatory barriers which impede the use of equity-based compensation (Cheng *et al.,* 2015), the Chinese culture is dominated by the norm of reciprocity in contrast to employment relations in western societies that are "detached from the wider social context and rather decontextualized", and "abstract, impersonal and legalistically contractual" (Westwood *et al.,* 2004, p. 367). Based on such nature of employment relations, researchers from the western schools of thoughts (e.g., Jensen and Meckling, 1976) recommend the use of legally binding contractual incentives such as stock options. Hence, paying an employee above the industry average may not elicit better performance in western countries and it may be simply viewed as rent extraction (Bebchuk and Fried, 2003). By contrast, in China, apart from being less formalized but more personalized, employment relations "remain more fully embedded in a wider social ethic and reciprocity represents a key component of that ethic" (Westwood *et al.,* 2004, p. 367). Hence, pay premium is likely to be seen as a reward for the employees' commitment and dedication to their jobs and to their employers in Chinese culture (Khan *et al.,* 2016). Therefore, China provides an appropriate setting for this study and would also help firms in the other countries with reciprocity norms to learn from the Chinese experience.

Our sample includes firms in non-financial sectors listed on the Shanghai and Shenzhen stock exchanges during 2010-2014 period and the data is from various sub-databases of China Stock Market and Accounting Research (CSMAR) database. According to the disclosure requirements of the securities regulations in China, it is mandatory for the listed

firms to disclose the financial statements, executive compensation, and biographies of directors in the annual reports. The data items used to compute marketing efficiency (ratio of sales to marketing expenses), market share, market concentration as well as research and development expenditure are extracted from the Financials sub-database. The information about the compensation for executive directors is retrieved from the Corporate Governance sub-database. We also identify the information about the profile of the directors such as the marketing experience from the Corporate Governance sub-database. This paper explores the effect of relative compensation for directors with marketing experience on marketing outcomes. Only the firms, which have executive directors with marketing experience, are included in our sample. Based on this criterion, we have 948 unique firms in our sample. Over the sample period, there are 2,753 firm-year observations, out of which 935 observations are from SOEs (283 Central SOEs vs. 652 Local SOEs) and 1,818 from POEs.

Measures

Relative compensation *(MRC)* is the ratio of average compensation for executive directors with marketing experience to the industry average of compensation for such directors. Executive directors with marketing experience were identified from the biography sections in annual reports. We use standard industry classification from CSMAR database, similar to the one used elsewhere (e.g., Lim *et al.,* 2018), to identify different industries to calculate the relative measures. Following previous research (e.g., Ambler, 2008; Clark, 2000; Gao, 2010), marketing efficiency *(MEFF)* is the ratio of a firm's total revenues to its marketing expenditure (in logarithm form). Marketing expenditure includes the expenses incurred to sell the product, including advertising and promotion, packaging, insurance, and transportation expenses. Market share (*MS*), is measured as the percentage of a firm's sales to an industry's total sales. Table I shows all the measures.

< Insert table I about here >

As for the moderator variables, we operationalise ownership type with two dummy variables; *LSOE*, which equals one for a local SOE and zero otherwise, and *CSOE*, which equals one for a central SOE and zero otherwise. Market concentration (*MCON*) is measured as the ratio of sales of top four firms in the industry to total sales in the industry. We also controlled for several firm characteristics that may also affect marketing performance. First, R&D activities create value-relevant marketing intangible assets that may affect firm value; hence, *R&D Intensity (RDI),* the ratio of R&D expenditure of the prior year to sales of the current year, is included as a control variable. Firm age (*AGE*)*,* the log of the number of years that a firm has established is also used as a control variable, as older firms tend to perform worse (Loderer and Waelchi, 2010). Next, log of number of employees (*NEMP)* as a measure of firm size to control for economies of scales (Feng *et al.,* 2021). *ROA* is return on total assets, which measures the profitability of a firm in relation to its total assets.

Data analysis and results

To address the potential problems of self-selection bias, simultaneous causality, and endogeneity between compensation and firm performance, we use the two-stage-least-square approach. Specifically, we use predicted values of the endogenous covariates from the first-stage in the second-stage estimation as it helps capture the exogenous part of the offending variable help correct the endogeneity problem, as advised by Gretz and Malshe (2019). Accordingly, we estimate the predicted value of compensation measure (*MRC*) in the first-stage and then use these as the treatment variable in the second-stage regression model. We use Hansen J-test to assess whether the instruments in the first-stage of regression model and the over-identification restrictions are valid. The small values of the J-statistic and its p-value indicate that the instruments and over-identification restrictions are valid.

We mean-centred all the continuous variables with interactions in order to reduce any

concerns on multi-collinearity between the interaction terms and their corresponding main effects. None of the tolerance levels of the variance inflation factor (VIF) values of the independent variables is significant. We further address the endogeneity concerns by using lagged measures for all the independent variables and using an industry-adjusted variable, relative compensation (*MRC*). We use a one-year lag as we rely on firm performance data available from annual reports of listed firms. Finally, we employ the random-effects panel model to control for firm heterogeneity along with industry, year, and region dummy variables to control for the fixed effects of the time trend over the sample period across the various industry groups and regions on market share and firm value (Fabrizi, 2014).

We use firm random effects model with industry and year fixed effects with 2,753 observations from 948 firms over the sample period (2010-2014). Firm random effects model is used to control for firm-level heterogeneity while analysing cross-sectional time series data in a model which includes the fixed time effects over the sample period, fixed industry effects across different industry groups, and fixed region effects over different provinces (Kim *et al.,* 2021). Our sample firms are from 36 industry groups over 31 provinces, autonomous regions and municipalities in China. Table II shows the sample distribution by region and industry. The sample firms are not evenly distributed among the different industry groups and regions. Hence, we include the industry dummies and region dummies to control for the fixed industry effects and fixed region effects. Table III shows all the correlations and descriptives.

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The results of hypothesis testing are reported in Table IV. As shown in Table IV Column (A), relative compensation MRC_t has a significant positive effect on both marketing efficiency $MEFF_{t+1}$ ($\beta = 0.20$, $p < 0.01$) and market share MS_{t+1} ($\beta = 0.18$, $p < 0.01$), supporting H1a and H1b. In Column (B), we examine the moderating impacts of local state ownership ($LSOE_t$), central state ownership ($CSOE_t$), and market concentration ($MCON_t$).

The interaction term MRC_t * $CSOE_t$ has significant positive effect on $MEFF_{t+1}$ ($\beta = 0.25$, $p < 0.05$). The positive impact of MRC_t on $MEFF_{t+1}$ is stronger for central SOEs than for local SOEs and POEs, supporting H2a. MRC_t * $LSOE_t$ and MRC_t * $CSOE_t$ interactions have significant positive impacts on MS_{t+1} ($\beta = 0.09$, $p < 0.01$ and $\beta = 0.18$, $p < 0.01$, respectively). The positive impact of MRC_t on MS_{t+1} is stronger for central SOEs than for local SOEs and POEs, which is consistent with H2b. Next, MRC_t * $MCON_t$ interaction has significant negative effects on $MEFF_{t+1}$ ($\beta = -0.47$, $p < 0.05$) and positive effects on MS_t ($\beta = 0.11$, $p < 0.01$). Thus, in a concentrated market, relative compensation has weaker effects on marketing efficiency (which contradicts H3a), but stronger effects on market share (which supports H3b). Finally, $MEFF_t$ has a significant positive effect on MS_{t+1} ($\beta = 0.01$, $p < 0.05$), which supports H4. Among the control variables, R&D intensity has no significant effect on either outcome variable, whereas firm age has significant positive effect only on marketing efficiency. Firm size (operationalised as number of employees) has a negative effect on marketing efficiency but a positive effect on market share.

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Discussion and implications

Marketing research on boards of directors is scarce (Whitler and Puto, 2020; Bommaraju *et al*., 2019). This is possibly because marketing experts represent a small proportion of a board. From 2007-2012, among S&P 1500 firms, the proportion of directors with executive-level marketing experience (excluding the CEOs and CMOs) is only 2.6% (Whitler *et al*. 2018). A survey by Spencer Stuart (2017) shows that marketing expertise ranks the second lowest when it comes to the wish list for new director's professional background (21% for marketing, compared with 62% for finance at the top of the list, and 15% for "Other" at the bottom of the list). Practitioners have been calling for greater marketing expertise in

boardrooms (e.g., Hayman, 2021). For this to happen, however, the benefits of marketing expertise at the board level must be clearly demonstrated.

This paper contributes to the ongoing debate about the importance of marketing (e.g., Boyd *et al*., 2010; Germann *et al*., 2015) by providing new insights about how and when directors with marketing experience may influence the firm's marketing outcomes. Our findings look beyond the traditional role of CMOs, to include other directors with marketing experience, to show that not only CMOs, but other members of TMTs with marketing experience may also influence marketing decision-making and outcomes, especially when they are paid higher compensation relative to their counterparts in the same industry. Thus, we show that pay premium (higher compensation relative to the industry average) can be used in a proactive manner to motivate directors with marketing experience make better marketing decisions that would lead to better marketing outcomes.

By investigating the use of pay premium, our paper complements the existing compensation studies which often focus on equity compensation. Agency theorists suggest that equity-based compensation such as stocks and options should be used to align the interests of directors and managers (the agents) with the interests of the shareholders (the principals) (e.g., Jensen and Meckling, 1976). Accordingly, the mainstream empirical compensation research examines the performance implications of equity-based compensation. Some studies show that equity compensation can incentivize CMO to give better performance. (See Appendix I.) Equity incentives, however, may not be universally appropriate. First, Artz and Mizik (2017) show that equity incentives may motivate the agent to take myopic actions to boost share prices. Second, because share prices are influenced by a myriad of factors beyond the agent's control, the use of such equity-based compensation exposes the agent to compensation risk. Equity-based compensation can be expensive to use in the sense that the value of equity-based compensation to the agent may be much lower than

its cost to the firm when the agent is more risk-averse or when stock prices are more volatile and noisy (Eisenhardt, 1989; Meulbroek, 2001). Third, in some countries, regulatory impediments may exist to discourage the use of equity-based compensation (Cheng *et al.,* 2015). In such situations, it is important to find an alternative way to motivate employees. Motivated by the limitations of equity-based compensation, we explore pay premium as an alternative incentivizing tool. Our results are represented graphically in Figure II below.

< Insert figure II about here >

We further add to the literature by showing that the positive impacts of relative compensation on marketing efficiency and market share are stronger in SOEs (especially for central SOEs), compared with POEs. State ownership has often been perceived as leading to inefficiency (and hence inferior performance), despite providing better access to the resources controlled by the government. This perception is confirmed by research evidence. In Chinese context, Boeing *et al*. (2016) shows that SOEs produce lower quality research and generate less revenue from R&D spending than POEs. Instead of efficiently allocating more capital to a member firm with better performance (which is what privately-owned business groups do), state-owned business groups do the opposite, apparently due to political motives (Chen *et al.,* 2017). SOEs also tend to lag behind POEs in terms of marketing effectiveness as well, as reflected through lower responsiveness to customer demand and fewer choices of services offered (Bei and Shang, 2006). Our results imply that when the inefficiency and ineffectiveness associated with state ownership is more severe, it become more important to provide proper work incentives for directors with marketing experience.

We also show that in a more concentrated market, the positive effect of relative compensation on market share is stronger but the positive impact of relative compensation on marketing efficiency is weaker. In other words, as competition becomes more intense, relative compensation appears to motivate directors with marketing experience to focus more

on improving marketing efficiency and less on increasing market share. These contradictory results can possibly be explained as follows. In a market with high competition, it may not be possible to achieve both high marketing efficiency and high market share at the same time. For instance, despite the firm's best effort to use marketing resources efficiently, it may still be expensive to attract new customers from a competitor. With more intense competition, pay premium appears to motivate directors with marketing experience to prioritize marketing efficiency (cost saving) over market share (growth). This prioritization may be shaped by China's delisting rule. Firms with three years of consecutive losses would receive warnings and would eventually be delisted if the losses continue in the subsequent 6 months (Hu and Wang, 2022). Facing hostile competitive environment, directors with marketing experience appear to focus on cost saving to avoid reporting accounting losses (and therefore avoid delisting) than to enhance the market position and market share.

Finally, we show that marketing efficiency is positively related to subsequent market share. Our result is relevant to the ongoing debates on explorative and exploitative activities. As discussed earlier, explorative activities are related to new opportunities, innovation, and growth in sales and market share. Exploitative activities are related to process redefining, efficiency improvement and cost saving (Auh and Menguc, 2005). Academics diverge in their views whether the explorative and exploitative activities are substitutes or complements. In the substitute view, because exploration and exploitation compete for scarce resources, firms will need to choose to focus on one or another. Firm performance can be improved when firms specialize in either explorative or exploitative activities (Marín-Idárraga *et al*., 2020). In the complement perspective, firms need to learn to maintain a good balance or trade-off between the two. Focusing too much on exploration can be harmful as exploration and innovation activities are risky (firms may succeed or fail). The return from exploration is uncertain and often distant rather than immediate. It is also important to enhance efficiency

for survival in the short run (e.g., Auh and Menguc, 2005). Chen and Katila (2008) propose that balancing can be done sequentially. At the onset, with initial investment from owners and creditors, firms engage in explorative activities to offer new products or locate new markets. After initial investment runs low, firms need to engage in exploitative activities to improve efficiency and save costs. The cost saving can then be used to fund further explorative activities. By showing that marketing efficiency leads to future improvement in market share, we provide empirical evidence to support this sequential (temporal balancing) view of exploration-exploitation.

Limitations and future research

This paper has a few limitations that future research may address. First, while this paper shows the impacts of pay premium for directors with marketing experience on marketing efficiency and market share, it does not explore the actual actions that may boost marketing efficiency and market share. Future research may adopt a case study or survey methodology to shed light on the above process. Second, we find that pay premium for marketers has stronger impacts in central SOEs than in local SOEs. This finding suggests that there may be other differences between them. Future research may explore how central state ownership shapes marketing functions (in comparison to local state ownership). Third, in our study, we use state ownership as a proxy for agency conflicts. In other words, we focus on agency conflicts associated with state ownership. Future research may examine agency conflicts arising from other sources and use others measures of agency conflicts such as special perks and benefits that may be provided to the board members. Finally, our dataset did not have the CMO compensation data, which would have allowed us to directly compare its contribution to firm performance with that by the relative compensation paid to the board members with marketing experience. Future research may address this limitation by using data on both, CMO compensation and board members with marketing experience.

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Figure I. Conceptual model

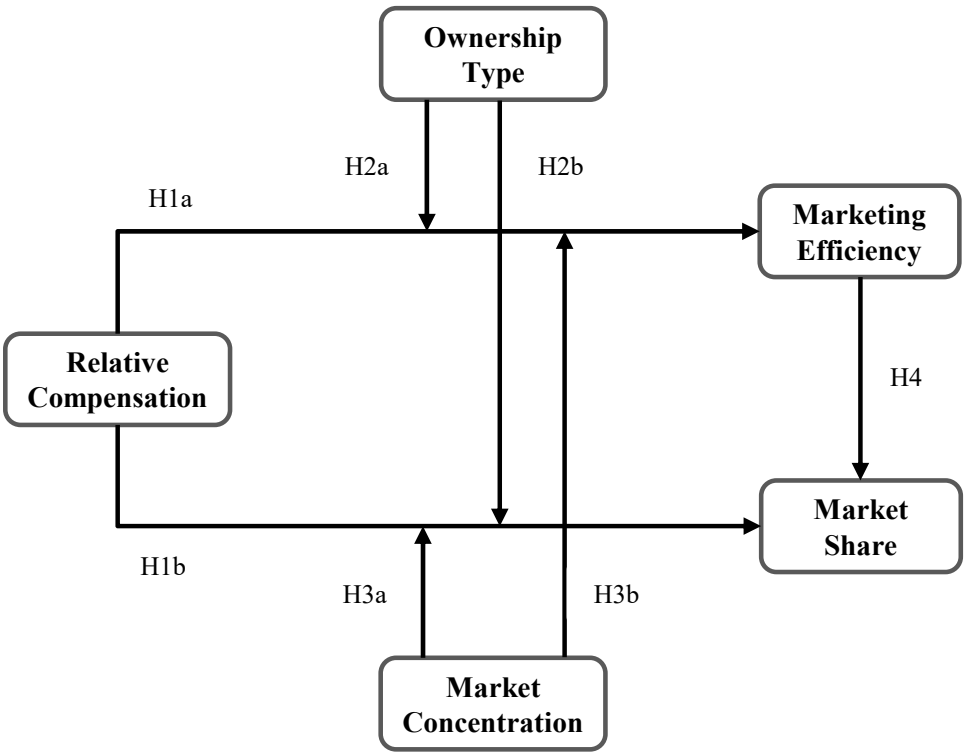

Figure II. Graphical representation of results from Model (B) in Table IV

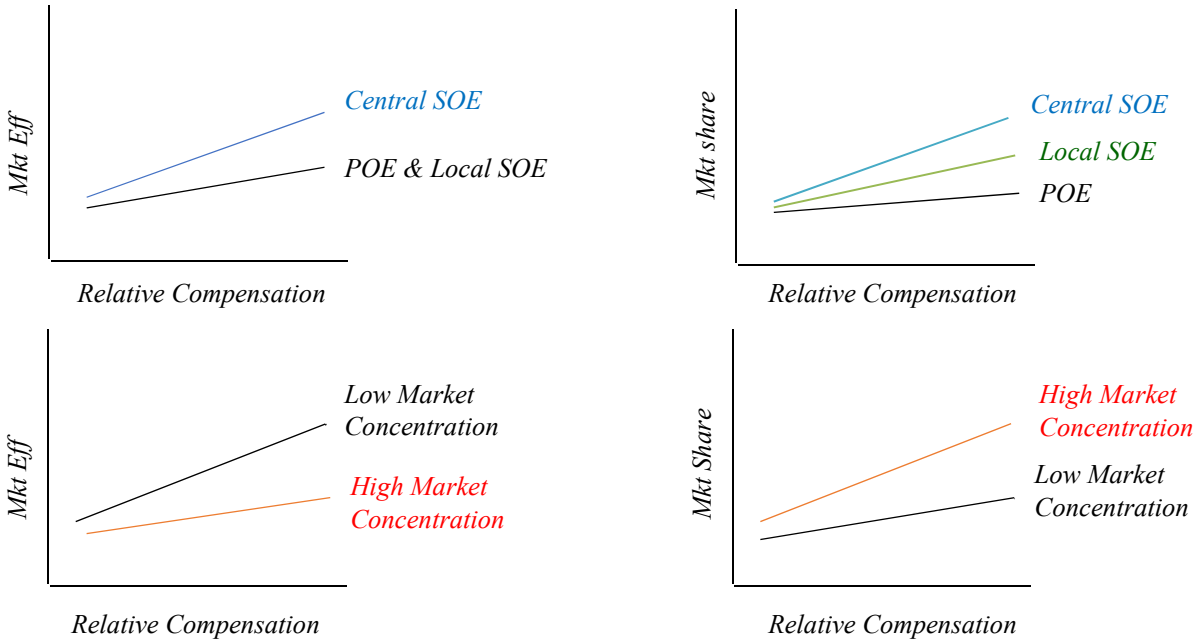

Table I. Measures

Variable	Measure
Relative Compensation (MRC_t)	Ratio of average compensation for executive directors with marketing experience to the average compensation for executive directors with marketing experience in an industry at time period t
Marketing Efficiency ($MEFF_{t+1}$)	Ratio of sales to marketing expenses at time period t+1 (in logarithm form)
Market Share (MS_{t+1})	Ratio of a firm's sales to an industry's total sales at time period t+1
Local SOE ($LSOE_t$)	A dummy variable which equals one for local state-owned firms and zero otherwise at time period t
Central SOE ($CSOE_t$)	A dummy variable which equals one for central state-owned firms and zero otherwise at time period t
Market Concentration ($MCON_t$)	Ratio of sales of top 4 firms in an industry to total sales in the industry at time period t
R&D Intensity (RDI_t)	Ratio of research and development expenditure at time period t-1 to sales at time period t
Number of Employees ($NEMP_t$)	Number of employees in logarithm form at time period t
Firm Age (AGE_t)	Number of years a firm has established in logarithm form at time period t
ROA (ROA_t)	Return on total assets at time t
Marketing Efficiency ($MEFF_t$)	Ratio of sales to marketing expenses at time period t (in logarithm form)

Table II. Sample distribution by region and industry

Panel A: Sample Distribution by Region		**Panel B: Sample Distribution by Industry Sector**		
Region	**Nos.**	**Code**	**Industry Sector**	**Nos.**
Anhui	93	A01-A05	Agriculture, forestry, poultry, and fishery	40
Beijing	172	B06-B11	Natural resources exploration	42
Chongqing	48	C13-C15	Food and beverages manufacturing	130
Fujian	84	C17-C19	Textile and garment manufacturing	108
Gansu	39	C20-C21	Wooden products manufacturing	17
Guangdong	508	C22-C24	Paper products manufacturing	74
Guangxi	40	C25	Petroleum and crude oil products	16
Guizhou	10	C26	Chemical products manufacturing	174
Hainan	25	C27	Chemical and biological medicines	180
Hebei	44	C28	Synthetic fibre manufacturing	25
Heilongjiang	35	C29	Plastics manufacturing	57
Henan	61	C30	Cement and ceramic products	61
Hubei	85	C31	Steel making	33
Hunan	99	C32	Nonferrous metals manufacturing	46
Inner Mongolia	14	C33	Metal products manufacturing	61
Jiangsu	280	C34	Equipment, bearing and valves	129
Jiangxi	37	C35	Special equipment manufacturing	131
Jilin	25	C36	Automobile manufacturing	101
Liaoning	77	C37	Aircraft and railway transport	23
Ningxia	8	C38	Electronic appliance manufacturing	233
Qinghai	17	C39	Computers and communications	257
Shaanxi	62	C40	Instrument manufacturing	24
Shandong	159	C41-C42	Other manufacturing	17
Shanghai	215	D44-D46	Utilities	64
Shanxi	24	E47-E50	Construction	35
Sichuan	112	F51	Wholesale	53
Tianjin	24	F52	Retail	88
Tibet	17	G53-G60	Transport	46
Xinjiang	30	H61-H62	Hotel and catering	10
Yunnan	38	I63-I65	Information technology	179
Zhejiang	271	K70	Real estate	152
		L71-L72	Business service	33
		M73-M75	Professional service	9
		N77-Q83	Public facilities and health care service	29
		R85-R86	News, film production, and publishing	43
		S90	Conglomerate business	33
Total	**2753**		**Total**	**2753**

Table III. Descriptives and correlations matrix

Variable	M	SD	1	2	3	4	5	6	7	8	9	10
1. Marketing Efficiency ($MEFF_{t+1}$)	3.06	1.16	1.00									
2. Market Share (MS_{t+1})	0.01	0.04	0.12**	1.00								
3. Relative Compensation (MRC_t)	1.02	0.48	0.02	0.52**	1.00							
4. Local SOE ($LSOE_t$)	0.24	0.43	0.08**	0.07**	-0.01	1.00						
5. Central SOE ($CSOE_t$)	0.10	0.30	0.18**	0.19**	0.02	-0.19**	1.00					
6. Market Concentration ($MCON_t$)	0.46	0.17	0.15**	0.08**	-0.03	-0.03	0.07**	1.00				
7. Number of Employees ($NEMP_t$)	7.50	1.26	0.01	0.41**	0.52**	0.15**	0.13**	0.02	1.00			
8. R&D Intensity (RDI_t)	0.00	0.01	-0.10**	-0.06**	0.00	-0.08**	0.01	0.07**	-0.06**	1.00		
9. Firm Age (AGE_t)	2.44	0.51	0.10**	0.07**	-0.04*	0.26**	0.13**	-0.04*	0.10**	-0.08**	1.00	
10. ROA (ROA_t)	0.04	0.06	-0.18**	0.02	0.35**	-0.03	-0.07**	0.00	0.02	0.00	-0.10**	1.00
11. Marketing Efficiency ($MEFF_t$)	3.08	1.16	0.95**	0.12**	0.03	0.09**	0.17**	0.15**	0.02	-0.11**	0.10**	-0.15**

Note: M = Mean, SD = Standard Deviation, * $p < 0.05$, ** $p < 0.01$

Table IV. Multiple moderated regression analyses output

Independent variables (at time t)	**Marketing Efficiency *(MEFF$_{(t+1)}$)***		**Market Share *(MS$_{(t+1)}$)***	
	(A)	**(B)**	**(A)**	**(B)**
Intercept	2.82**	2.89**	-0.30**	-0.03**
Relative Compensation (MRC$_t$)	0.20**	0.13*	0.18**	0.15**
Local SOE (LSOE$_t$)	0.07	0.10	0.04*	0.06**
Central SOE (CSOE$_t$)	0.24**	0.29**	0.10**	0.13**
Market Concentration (MCON$_t$)	0.86**	0.89**	0.04	0.03
*Relative Compensation * Local SOE (MRC$_t$ * LSOE$_t$)*		0.13		0.09**
*Relative Compensation * Central SOE (MRC$_t$ * CSOE$_t$)*		0.25*		0.18**
*Relative Compensation * Market Concentration (MRC$_t$ * MCON$_t$)*		-0.47*		0.11**
Marketing Efficiency (MEFF$_t$)			0.01*	0.01*
Control variables				
Number of Employees (NEMP$_t$)	-0.08**	-0.08**	0.02**	0.02**
R&D Intensity (RDI$_t$)	-1.04	-1.17	-0.14	-0.21
Firm Age (AGE$_t$)	0.19**	0.18**	0.02	0.02
ROA (ROA$_t$)	-0.62**	-0.63**	-0.40**	-0.39**
Industry, Year and Region Dummies Included	Yes	Yes	Yes	Yes
Adjusted R-square	0.27	0.27	0.45	0.52
F Statistics	22.63	21.00	48.54	59.00
p-value	0.00	0.00	0.00	0.00
Number of Observations	2753	2753	2753	2753

† $p < 0.10$; * $p < 0.05$, ** $p < 0.01$

Appendix I. Executive compensation and marketing

Executives type	Focus	Author(s) and Year	Sample	Main Findings
CEO	Determinants of compensation	O'Connell and O'Sullivan (2011)	118 US listed firms (1994-2005)	Together with accounting performance (return on total assets) and stock performance (shareholder return), customer satisfaction increases CEO's total cash compensation and bonus.
CEO	Determinants of compensation	Huang and Trusov (2020)	150 US listed firms (1995-2017)	CEO total compensation is positively related to short-term-oriented performance (sales per 1,000 employees), but is not significantly related to long-termed-oriented marketing performance (customer satisfaction). The boards of directors appear to underappreciate customer satisfaction despite its positive impacts on shareholder return.
CEO	Consequences of compensation	Luo *et al*. (2012)	87 US listed firms (1995-2008)	Equity compensation motivates the CEO to build customer relations and employee relations. Corporate actions to build relations with customers and employees then help increase firm value, both directly and via improvement in customer satisfaction.
Top five highest-paid executives	Determinants of compensation	Tavassoli *et al*. (2014)	393 US listed firms (2000-2010)	Total compensation tends to be lower for executives in firms with strong brand, especially for CEOs and for younger executives. This is possibly because the executives consider the self-enhancement benefits associated with strong brands as a substitute for monetary compensation.
Top five highest-paid executives	Consequences of compensation	Currim *et al*. (2012)	842 US listed firms (1993-2005)	Firms which award higher equity compensation (relative to bonuses) tend to have higher level of advertising and R&D spending. The advertising and R&D spending mediate the relationship between equity compensation and stock market return. Long-term incentives such as equity compensation can motivate executives to invest more in marketing, which then lead to better shareholder return.
CMO	Determinants of	Lee and Scott	31 US listed	Marketing executives receive higher compensation when customer

	compensation	(2013)	firms (1991-2010)	satisfaction improves. Prior years of marketing work experience also increase an executive's salary and total compensation, but not bonuses.
CMO	Consequences of compensation	Kim *et al*. (2016)	543 US listed firms (1993-2009)	CMO equity incentives are positively associated with shareholder return and firm value. The positive association becomes stronger when the CMO is given greater discretion in strategic, operational, and financial decisions.
CMO	Determinants and consequences of compensation	Fabrizi (2014)	227 US listed firms (2000-2009)	As for the determinants of CMO equity compensation, CMO equity incentives increases when firm's marketing intensity increases. In terms of consequences, CMO equity incentives are found to increase shareholder value, both directly and via a partial mediator, marketing intensity.
CMO	Determinants and consequences of compensation	Bansal *et al*. (2017)	1,770 US listed firms (1992-2013)	CMO total compensation and equity incentives tend to be higher in firms with greater advertising and R&D intensity but are lower for firms in a more concentrated industry. Firms which deviate from the expected level of compensation and equity incentives (as predicted by the regression models) tend to have lower financial performance (as measured by return on total assets, earnings surprise, and stock return).
CEO and CMO	Consequences of compensation	Artz and Mizik (2017)	US listed firms (1993 – 2014 (missing number of firms)	CMO equity incentives increase both the incidence and severity of myopic marketing practices. After controlling for CMO equity incentives, CEO equity incentives are not significantly related to the occurrence and severity of myopic marketing practices.