

What Drives Managerial Perks? An Empirical Test of Competing Theoretical Perspectives

Hua Zhang, Yuanyang Song & Yuan Ding

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What Drives Managerial Perks? An Empirical Test of Competing Theoretical Perspectives

Hua Zhang · Yuanyang Song · Yuan Ding

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Abstract What drives managerial perks? The commonly accepted view of perks suggests that they are a misuse of firm resources for managers' private benefit (*cost view*), and thus perk consumption is unethical. However, an alternative view argues that perks can motivate managers to work hard and thus add to the value of the firm (*incentive view*): from this perspective, perk consumption is an ethical form of behavior. The fundamental difference between the two positions has critical implications for practice, and this article tests these competing views to determine the circumstances in which one view dominates the other. Using hand-collected data on perks in Chinese-listed companies, we find strong empirical support for the incentive view, which is more likely to be held in firms with moderate ownership concentration. This article not only contributes to the literature on business ethics, but also has critical implications for managerial incentive practices in emerging economies.

Keywords Perks · Ethics · Agency theory · Incentive · China

Introduction

A “perk” (short for “perquisite”) is a monetary or non-monetary item of compensation that cannot be properly

classified as salary, bonus, or equity-based compensation (Securities and Exchange Commission, Item 402 of Regulation S-K). As an important but controversial component of managerial compensation, perks have been of interest to researchers in economics, finance, management, and other areas for decades. One critical question is whether perk consumption is an ethical or unethical form of behavior. Although research pioneered by Jensen (1986) has intensively examined the nature and consequences of perks (e.g., Adithipyangkul et al. 2011; Gul et al. 2011; Luo et al. 2011; Rajan and Wulf 2006; Yermack 2006), answers to this question differ significantly, and the differences have puzzled and occasionally misled firm practices for some time.

The commonly accepted view of perks is that they are a misuse of firm resources for managers' private benefit and destroy firm value (this is referred to hereafter as the *cost view*), such that perk consumption is seen as unethical. Specifically, based on Jensen and Meckling's (1976) agency cost theory, Jensen (1986) developed the concept of free cash flow further and argued that managers tend to pursue their private interests by misappropriating available firm resources. Perks, which are not easily observable, provide managers with a convenient channel for such misappropriation. Additionally, excessive perks widen pay disparities between managers and the lower personnel ranks, because perks are typically not offered to lower-level employees (Wilhelm 1993). This undermines organizational justice and has negative effects on employee job satisfaction and productivity.

Another view, in sharp contrast to the cost view, is that perks can be part of an optimal incentive package (Fama 1980; Marino and Zábojník 2008) and motivate managers to work hard in the interests of the company (Adithipyangkul et al. 2011). Perks are offered on top of the

H. Zhang · Y. Ding
China Europe International Business School (CEIBS),
Shanghai, China
e-mail: dyuan@ceibs.edu

Y. Song (✉)
School of Business, East China University of Science and
Technology, Shanghai, China
e-mail: yysong@ecust.edu.cn

formal and generally explicitly specified incentives such as salary, bonus, and stock options, and are typically less formal and often implicitly contracted (Marino and Zábajník 2008). For example, company owners may allow their manager discretion in consumption of certain perks such as entertainment, dining, traveling, etc. (Adithiyangkul et al. 2011; Firth et al. 2010). However, final approval of such expenditure is still controlled by the owners and is contingent on the corporate performance. In this view (referred to hereafter as the *incentive view*), perk consumption is explicitly or implicitly permitted by company owners to incentivize managers, and perk consumption is thus considered ethical managerial behavior.

Although a number of studies have tried to distinguish between these two views, the empirical evidence is mixed. Based on U.S. Fortune 500 companies, Yermack (2006) found that stock markets negatively reacted to disclosure of the CEO's personal use of corporate jets. This practice was mainly determined by CEO characteristics (e.g., long-distance golf club memberships), which supports the cost view of perks. On the other hand, Rajan and Wulf's (2006) evidence from the U.S. publicly traded firms showed that offering managers perks (company planes and chauffeur service) enhances the productivity of their recipients, and hence firm value. They also found that perks are not significantly related to firms' free cash flow. Contrary to free cash flow theory, perks are more likely to exist in firms operating in high-growth industries and generating a lower level of free cash flow (Rajan and Wulf 2006). This is consistent with the incentive view.

While the research findings have been inconclusive, both the cost and incentive views agree that certain firm characteristics influence perk consumption. As this article will discuss further, their predictions regarding the direction of the relationships between these determinants and perk consumption differ. We believe that while the cost view of perks applies widely to firms due to the prevalence of agency problems between managers and owners, the incentive view of perks may apply in situations where the controlling shareholders use perks to motivate their managers effectively. The main explanation for the inconclusive results in the literature could therefore be the specificity of the previous studies' institutional context, as the figure of the powerful controlling shareholder is often nonexistent in the U.S. firms. For this article, extant theoretical and empirical studies were built on to explore the determinants of perks empirically, by adopting a competing theoretical perspective approach for the two views identified (cost vs. incentive) in the fundamentally different research settings of China, where controlling shareholders are prevalent. We examined testable hypotheses based on these two competing views.

This study's analysis of 3,403 firm-year observations concerning Chinese-listed firms from 1999 to 2006 generated some interesting results. First, the empirical results

are largely consistent with the incentive view of perks, suggesting the ethical nature of perk consumption in the Chinese context. Second, our additional test revealed that the incentive view of perks plays a predominant role in firms where the largest shareholders own more than 20 % but less than 50 % of the company, which helps to further clarify the circumstances in which ethical use of perks is more likely. This finding is insightful given that in this group of firms, large shareholders have both the power and the need to use perks to incentivize managers. Firms with shareholders owning <20 % present the classic agency problem between managers and owners, while those with large shareholders owning >50 % have controlling owners who intervene in firm operations to exercise tight control. In both these cases, the incentive view is less relevant.

As an initial probe into the ethicality of perks in an emerging economy, this article makes both theoretical and empirical contributions to the literature on business ethics. First, in contrast to the commonly accepted cost view of perks (i.e., that use of perks is unethical), we suggest that perks can act as an incentive in certain circumstances. This not only extends our understanding of the nature of perks but also helps to paint a more complete picture of the ethical issue of perk consumption around the world. Second, we take an additional step and investigate the circumstances in which either view predominates. We find that the incentive view (i.e., that use of perks as an incentive is ethical) is more likely to be held in firms with moderate ownership concentration, which helps to clarify the ethicality of perks in firms with different ownership structures. Third, we find that perks are one of the most important alternative incentive tools in China due to social equity pressure, and this greatly advances our understanding of the evolution and adaptation of incentive schemes for top managers in an environment with social equity constraints, in addition to helping outsiders understand the complex issues of employee incentives in China.

The remainder of this paper proceeds as follows. The second section summarizes the theoretical background to the different views (cost vs. incentive) and develops hypotheses using the competing theoretical perspectives. The third section presents the sample, the data source, and the construction of the variables. The fourth section presents the results of our empirical analysis. Conclusions are finally drawn in the fifth section, along with suggestions for theoretical and practical contributions, limitations and future research directions.

Theory and Hypotheses

Cost Versus Incentive Views of Perks

The cost view of perks, which is based on agency and free cash flow theory (Jensen 1986; Jensen and Meckling 1976),

posits that perks may exist as a result of conflicts of interest between managers and shareholders, and the availability of free cash flow. Carson (2003) noted that “the diffusion of ownership in the modern corporation makes it very difficult for shareholders to exercise effective control over their investments. This gives considerable scope for high-ranking executives to enrich themselves at the expense of shareholders and everyone else. I have in mind such things as excessive pay and perks, sky boxes, golden parachutes, and bloated executive bureaucracies” (p. 392). Therefore, perk consumption in such a situation belongs to the category of unethical managerial behavior.

As ownership structure is crucially important in agency problems (Shleifer and Vishny 1997), there are two main mechanisms that can effectively address conflicts of interest: (1) the presence of a large shareholder who will protect firm value (Shleifer and Vishny 1986, 1997) and (2) managerial shareholdings (McConnell and Servaes 1990; Morck et al. 1988). The cost view of perks predicts that these two mechanisms may curb unethical use of perks.

The incentive view of perks, in contrast, argues that perks can be used to incentivize managers, leading to very different predictions. In this view, perks are part of an optimal incentive package. They are either explicitly or implicitly specified (Fama 1980; Marino and Zábajník 2008) and can serve as a form of nonmonetary compensation that incentivizes managers to work hard (Adithyankul et al. 2011). As “compensation systems are almost always set and administered by the most powerful members of an organization” (Bloom 2004, p. 151), managerial perks are granted or allowed by the owner if he or she has a strong incentive to enhance firm value and the manager’s talent is strongly needed for the firm’s operation and growth (Chen et al. 2010).

Perks represent significant managerial benefits received from the firm. Similar to formal cash compensation, they can extensively improve managerial utility and may thus serve as a potential incentive for several reasons. First, because the value of perks is positively associated with managers’ ordinal rankings in the organizational hierarchy, perks provide strong incentives for managers to work hard for promotion by widening the compensation gap between high and low-level positions (Lazear and Rosen 1981).

Second, perks are usually tax-free, and are thus associated with lower marginal tax rates. As managers are usually in the high tax rate bracket, this tax benefit makes perks an attractive alternative to formal cash compensation. On the supply side, the cost of the perks is lower for firms than for employees due to firms’ bulk purchasing power and tax shields (Oyer 2008; Rajan and Wulf 2006). As a result, perks are popular with both employees and employers.

As Bloom (2005) argued, compensation systems play important social and symbolic roles in organizations, and

thus affect a variety of important organizational outcomes such as the nature of work relationships, employee commitment, and performance. As an important component of compensation systems, perks can act as an incentive for managers and thus benefit the firm. In such cases, perk consumption is considered an ethical practice.

The Research Setting

We used China as our research setting because it provides an ideal environment to test the competing theories on perks for the following reasons.

First, it is very common for Chinese companies to have a concentrated ownership structure and a clearly identified controlling shareholder. In our view, this feature makes China ideal for testing the incentive view of perks. Most U.S. companies have a dispersed ownership structure (Berle and Means 1932; La Porta et al. 1999; Shleifer and Vishny 1997), and thus rarely a dominant shareholder. As small shareholders generally lack the incentive and ability to monitor managers (Shleifer and Vishny 1986), perks are typically initiated and in practice decided unilaterally by managers rather than being the outcome of negotiation between managers and powerful owners. In such a context, it is difficult if not impossible to test the incentive view of perks. We believe the main reason behind the lack of evidence for the incentive view is that most prior empirical studies have focused on the U.S. companies.

Chinese companies inhabit a very different shareholding setting. Nearly 99 % of Chinese-listed firms had controlling shareholders by the end of 2006 according to La Porta et al.’s (1999) criteria (i.e., the voting rights of the largest shareholder exceed 10 %). Unlike small shareholders, controlling shareholders tend to be heavily involved in company management and therefore interact intensively with managers (La Porta et al. 1999). In such circumstances, owners may use perks as incentives when contracting with managers. Even if perks are not formally pre-specified in the contract, managers may initiate some perk consumption, but owners still retain the final power of approval. Either way, a perk (whether explicit or implicit) is an important component of an incentive package designed to align managerial interests with the firm’s interests.

Second, given the prevalence of socialist values, the social equity culture in China further enhances the popularity of perks in Chinese firms because perks are less visible than formal compensation packages. The experience of Mingzhe Ma, the CEO of Ping An Insurance Company of China (a Fortune Global 500 giant), provides a very enlightening example of public attitudes to high executive pay. As a listed company, Ping An announced that Mingzhe Ma’s 2007 annual compensation package was RMB66.161 million, the highest of all Chinese-listed firm

CEOs that year. Mingzhe Ma and Ping An then sustained severe criticism from the public, and the questions escalated into a country-wide debate on social equity, business ethics, and social responsibility. The pressure became so huge that the following year Ping An announced that Mingzhe Ma, who was still the CEO, was receiving no compensation at all.

Given this background, it is no wonder that the compensation gap between CEOs and low-level employees is relatively small in China. The average annual compensation of the three highest-paid executives in Chinese-listed firms was RMB140 thousand (about US\$20 thousand) from 1999 to 2004 (Adithipyangkul et al. 2011), whereas the average CEO compensation for firms in the S&P 1500 index was US\$5.8 million in 2004 (Chhaochharia and Grinstein 2009). Additionally, the average annual compensation of the three highest-paid Chinese executives was about 5 times the average annual salary of an employee in a Chinese-listed firm (Firth et al. 2010). In contrast, the average U.S. CEO compensation was approximately 364 times the average U.S. worker's salary in 2006 (Walsh 2008), with CEO compensation already 4 times higher than VP compensation in the U.S.-listed firms (Kale et al. 2009). With the weaker viability of formal compensation as an incentive scheme and the limited applicability of stock options (Adithipyangkul et al. 2011), the importance of perks increases accordingly in China.

Following the spirit of the two views on perks and the features of our research setting (i.e., China), we developed testable hypotheses on the determinants of perks, presented in the next subsection.

Ownership Type

Companies in China generally have a concentrated ownership structure. On average, 42 % of shares are held by the largest shareholders in our sample firms. From the shareholding percentage alone, it can easily be inferred that the controlling shareholders' interests are closely bound up with those of the firm, and they both have strong motives and the power to monitor managers for excessive perk consumption.

However, the incentives of controlling shareholders may differ between Chinese firms controlled by the state and Chinese firms controlled by private owners. Despite its relative decline during the market-oriented economic reform, state ownership still contributes substantially to the Chinese economy (Ding et al. 2007, 2008): state-owned industrial firms accounted for 32.34 % of the sales of all industrial firms in 2006 (NBS 2007). Taking listed companies as an example, 920 of the total 1,434 (64 %) were state-owned at the end of 2006 (the end of our sample period).

State-owned firms are widely believed to have more severe agency problems than their private counterparts because they typically have an extra agency relationship, as the controlling owners are themselves agents of the true owners, i.e., the nation's citizens. Shleifer (1998) argued that citizens, as the owners of public firms, are less able to develop complete contracts with their managers due to their diffuse nature, which makes it more difficult to address the conflicts of interest between owners and managers. This led Shleifer and Vishny (1997) to argue that from the agency perspective, "state enterprises are a manifestation of the radical failure of corporate governance" (p. 739).

As a consequence of these agency problems, state-owned enterprises (SOEs) are plagued by 'soft budget' constraint problems, a term coined by Kornai (1979, 1980) for situations in which a manager behaves imprudently, e.g., invests in new projects with negative net present value, resulting in financial distress for the firm. Berglof and Roland (1998) and Frydman et al. (2000) suggested that soft budget constraints have been a major source of inefficiency for SOEs. For instance, the Guangdong branch of Sinopec, one of China's largest SOEs, spent RMB1.59 million on wine in a single month (April 2011) for its top managers (Ran and Bao 2011). Huang and Snell (2003) regarded corruption in SOEs as a manifestation of a poor moral atmosphere (moral climate, moral ethos) with counter-norms that are tolerant of inappropriate conduct, leading to a failure of governance and leadership.

In contrast, the controlling shareholders of private firms, as true owners, tend to be more active in monitoring managers. Unsurprisingly, studies of privatization show that in most cases privatization increases firm performance (see Megginson and Netter 2001 and Djankov and Murrell 2002 for thorough reviews). Huang and Snell (2003) argued that durable virtue can be built in a private corporation, whereas the barriers may be greater in SOEs and may necessitate wider social, structural, economic, and political reform. In the same vein, the agency view of perks predicts that managers of SOEs will appropriate more perks for their own benefit.

The empirical literature on business ethics has also suggested that unethical behavior is prevalent among Chinese SOEs. Hou and Moore (2010) found that state ownership not only weakens the internal monitoring mechanism of listed firms, leaving opportunities for management to commit fraud, but also is associated with a lower incidence of enforcement action, which is attributed to the mutual political associations between fraudulent SOEs and the regulatory commission. Furthermore, state ownership increases the probability of receiving a clean audit opinion in China (Liu et al. 2011). In a study of corporate citizenship and employee values and their

attitudes toward the environment, Chun (2009) revealed that SOEs in China have much poorer ratings for all three constructs than that of private firms. Using data on Chinese firms' responses to the 2008 Sichuan earthquake, Zhang et al. (2010a) found that SOEs were less likely to respond to this disaster than private firms were. Furthermore, corporate donations from SOEs following this disaster were lower than donations by private firms.

Concerning management compensation, social equity-related pressure will be more influential in SOEs than in private firms because political consideration is usually the objective of SOEs (Boycko et al. 1996; Shleifer and Vishny 1994). Therefore, managers of SOEs are expected to have low formal compensation and enjoy more perks. We thus arrive at our first hypothesis:

Hypothesis 1a (H1a) Perk consumption is higher in state-owned firms than in private firms.

However, the incentive view argues that perks are part of a firm's managerial incentive scheme. As the interests of private firms' controlling owners are well aligned with the firms' interests, they are more likely to use perks in order to incentivize managers. Furthermore, the owners of private firms require leaders to take more responsibility for their actions and strategy-making (Zhang et al. 2011). Accordingly, the working stresses and career risks will be higher for managers in private firms than those in SOEs. Therefore, in comparison with their counterparts in SOEs, managers of private firms should be rewarded with more perks to offset these disadvantages.

Additionally, managerial capabilities play a more important role in private firms than in SOEs since SOEs can gain a competitive advantage through their close political connections with the government. The value of political connections takes various forms including "preferential treatment by government-owned enterprises (such as banks or raw material producers), lighter taxation, preferential treatment in competition for government contracts, relaxed regulatory oversight of the company in question, or stiffer regulatory oversight of its rivals, and many other[s]" (Faccio 2006, p. 369). Moreover, thanks to their dominant position in the Chinese economy and their more stable and secure career paths, SOEs can more easily attract talent and build their pool of high-quality managers than private firms.¹ In summary, managers should be rewarded with more perks in private firms than in SOEs,

¹ According to ChinaHR.com's survey of best employers in China, 33 of the top 50 best employers in 2010 were SOEs, 13 were private firms, and 4 were foreign firms. Private manufacturing firms in the Pearl River Delta found it very hard to recruit employees, while hundreds of workers competed for a handful of positions offered by SOEs (Deng 2006).

according to the incentive view of perks. Thus, we hypothesize:

Hypothesis 1b (H1b) Perk consumption is higher in private firms than in state-owned firms.

Managerial Ownership

According to agency theory, as the objectives of managers and shareholders are divergent, rational managers will take advantage of information asymmetry to pursue private benefits. Managerial shareholding is often used as an effective mechanism to align the interests of managers and shareholders, because the former become owners of the firm. Accordingly, low CEO ownership levels are associated with various types of unethical behavior, such as excessive executive perks (Jensen and Meckling 1976), shirking behavior (Demsetz and Lehn 1985), and excessive investment in pet projects and other activities not in the shareholders' interests (Jensen 1986; Harrison and Coombs 2012).

Empirical studies also find that greater managerial ownership leads to more ethical behavior, such as greater environmental action to mitigate product or environmental weaknesses (Mahoney and Thorne 2005), and more corporate social responsibility actions (Mahoney and Thorn 2006), as managers are more likely to take actions that are consistent with maximizing the interests of the firm in the longer term. As ethical behavior by managers leads to better firm performance, we should be able to observe a positive relationship between managerial ownership and firm performance. For instance, Morck et al. (1988) and McConnell and Servaes (1990) showed that firm value increases with the importance of managerial shareholding, and Mehran (1995) found that managerial ownership has a positive effect on firm performance (i.e., Tobin's Q and ROA).

To sum up, in the cost view, perk consumption is a self-serving managerial behavior that results from conflicts of interest between managers and shareholders (e.g., Jensen 1986; Jensen and Meckling 1976). As managerial ownership increases, the interests of managers and shareholders tend to converge. Therefore, we expect that greater managerial ownership will lead to fewer managerial perks, and hypothesize that:

Hypothesis 2a (H2a) Perk consumption is negatively related to managerial ownership.

It is worth noting that past studies have also found that any increase in managerial shareholding beyond a certain level is detrimental to firm value. According to Morck et al. (1988) and McConnell and Servaes (1990), at a low level, an increase in managerial shareholding aligns the interests

of managers and the firm rather than entrenching managers. However, the entrenchment effect dominates if managerial shareholding increases beyond a certain turning point. The two studies discovered different turning points: around 40 % for McConnell and Servaes (1990) and around 5 % for Morck et al. (1988). With larger shareholdings, managers have greater decision-making power to pursue their own private interests unethically rather than those of other stakeholders, especially in countries with a low level of transparency (Oh et al. 2011). However, the mean managerial shareholding in our Chinese sample is very low at 0.13 %, far below these two turning points (40 and 5 %). This indicates that in our research setting, the entrenchment effect is not likely to be an issue.

In the incentive view, perks, like managerial shareholdings, incentivize managers to enhance firm value. A high level of managerial shareholding captures the owners' eagerness to retain and incentivize their managers, which indicates the managers' importance to the firm. Therefore, it is reasonable to infer that those managers will also be incentivized with more perks. Thus, we hypothesize:

Hypothesis 2b (H2b) Perk consumption is positively related to managerial ownership.

Firm Growth

Self-serving managerial behavior is shaped by various external and internal conditions (Conyon 2006; Pazzaglia 2010; Wei and Zhang 2008). Therefore, firm growth, as it determines the firm's free cash flow available to managers, has a strong bearing on unethical managerial behavior. Based on Jensen and Meckling's (1976) agency perspective, Jensen (1986) developed the concept of free cash flow further and theorized that in firms with low growth and a high free cash flow, managers have a natural tendency to engage in self-serving misappropriation.

Subsequent empirical studies have yielded further evidence on the unethical behavior of low growth/high free cash flow companies, such as overinvestment (Richardson 2006; Wei and Zhang 2008) and value-destroying growth strategies (Brush et al. 2000), which are beneficial from a managerial perspective but costly from a shareholder perspective. With regard to perks, which are a typical form of managerial misappropriation of firms' free cash flow, the cost view predicts that:

Hypothesis 3a (H3a) Perk consumption is negatively related to firm growth.

In contrast, the incentive view suggests that perks are incentives that reward past managerial effort and motivate managers to further improve firms' competitive advantage in the future. Typically, there are greater uncertainties

associated with growth firms that make managerial capabilities more crucial. At the same time, such uncertainties make it more difficult to monitor managers and hence incentive pay becomes more important (Conyon 2006). The incentive role of perks, as a component of compensation systems, increases in such circumstances (Marino and Zábajník 2008). Thus, according to the incentive view, we hypothesize:

Hypothesis 3b (H3b) Perk consumption is positively related to firm growth rate.

Firm Size

Managing large firms brings managers a range of private benefits, such as greater power and status, more perks and compensation, and a lower unemployment risk (Amihud and Lev 1981, 1999; Jensen 1986; Brush et al. 2000; Murphy 1985).

Past studies show that firm size affects managers' ethical behavior in two ways, through resource availability and information asymmetry. First, in large firms with more resources at their disposal, managers have more opportunities to pursue private benefits at the expense of owners. Second, the information asymmetry between owners and managers is positively related to firm size, because the organizational structures and operations are more complex in large firms than in small firms, which makes managers' self-serving behavior less observable (Chen et al. 2012, p. 253). As a result, Neubaum et al. (2004) found that ethical climates are very different in large firms and in small corporations. Specifically, there is a significantly negative relationship between firm size and organizational ethical climate (i.e., caring, rules, and law and code). Jensen's (1986) insightful observation that managers have strong incentives to grow their firms beyond the optimal level to pursue private benefit (empire building) is thus unsurprising, because in larger firms, unethical managerial behavior is less tightly constrained by the organizational ethical climate.

To sum up, according to the cost view of perks, we can expect managers to enjoy more perks in large firms than small firms, and hence:

Hypothesis 4a (H4a) Perk consumption is positively related to firm size.

However, the incentive view of perks implies the reverse relationship. Thanks to their abundant resources and high visibility; large firms may attract and retain more talented managers than small firms, meaning that they require fewer perks to incentivize managers. This leads to the following hypothesis.

Hypothesis 4b (H4b) Perk consumption is negatively related to firm size.

Methods

Sample

Our sample was based on companies listed on the Chinese stock market from 1999 to 2006. Listed firms are playing an increasingly important role in the Chinese economy. The capitalization of Chinese-listed firms was approximately 30 % of China's GDP at the end of 1999, and had risen to about 42 % by the end of 2006 (NBS 2000, 2007). Our sample thus represented a significant portion of the Chinese economy.

There are two advantages to using listed companies in our sample. First, it makes the results of this study more comparable to results of previous literature, as the samples in most studies consist of the U.S. Fortune 500 firms (e.g., Yermack 2006) or Chinese-listed firms (e.g., Adithipyangkul et al. 2011; Gul et al. 2011). Second, Chinese-listed companies disclose their operating cash flow, using the direct method. This practice may involve the disclosure of "other cash payment related to operating activities," which is widely believed to capture perk consumption (Chen et al. 2010; Adithipyangkul et al. 2011; Gul et al. 2011; Luo et al. 2011). This type of archival data on perks is more accessible and more accurate than the survey data typically used in many previous studies (e.g., Rajan and Wulf 2006).

Our data came from two sources. Data about perks were manually collected from the annual reports of listed firms, while firm- and city-level information was collected from the China Stock Market and Accounting Research (CSMAR) database, one of the largest databases on Chinese-listed firms, already widely used in previous studies (Adithipyangkul et al. 2011; Wang and Qian 2011; Wei and Chen 2009).

From the total 9,733 firm-year observations for all of the listed firms in China from 1999 to 2006, we selected firms that disclosed the accounting item "other cash payment related to operating activities" in their cash flow statements, giving a sample of 3,403 firm-year observations. Table 1 presents the number of observations for each year. We had relatively more observations in later years, as an increasing number of firms chose to disclose this particular item.

A question of sample bias arises, i.e., the question of whether the decision to disclose is not made randomly, but rather due to certain firm characteristics. For example, certain types of firm may be more likely to expense more perks but decide not to disclose this item. We addressed this concern in two ways.² First, we generated a matched sample of non-perk-disclosing firms based on industry and

² We thank the anonymous reviewer for this suggestion.

Table 1 Year representation

Year	Number of observations	Percentage
1999	123	3.61
2000	115	3.38
2001	395	11.61
2002	452	13.28
2003	513	15.07
2004	604	17.75
2005	591	17.37
2006	610	17.93
Total	3,403	100.00

This table reports the number of observations and the percentage of observations in a year to total observations for each year during the sample period (1999–2006)

ROA, and then compared the following characteristics between the discloser sample and the non-discloser sample: private firm, managerial ownership, growth rate, total assets, and leverage. Intuitively, these factors might be expected to lead systematically to different levels of perk consumption, followed by the disclosure decision. Although these two groups of firms differ in total assets ($t = 2.06$, $p = 0.04$), t tests revealed no other systematic differences between disclosers and non-disclosers in mean scores for private firm ($t = 0.78$, $p = 0.44$), managerial ownership ($t = -1.04$, $p = 0.30$), growth rate ($t = 0.56$, $p = 0.57$), and leverage (total debt/total asset) ($t = 0.68$, $p = 0.49$), indicating little systematic sampling bias.³

Second, we used Heckman's selection correction model to control for potential sample selection biases, and obtained qualitatively similar results. Specifically, following Lo and Wong (2011), we used the following variables to predict a firm's likelihood of disclosing data on perks (i.e., items of "other cash payment related to operating activities"): percentage of independent directors on the board, institutional ownership, regional legal environment index,⁴ firm size, largest shareholder's percentage ownership, ROA, leverage, private firm, industry and year dummies. In the second stage, the inverse Mills ratio was included as a regressor. The results showed that private firm ($p < 0.01$), managerial ownership ($p < 0.05$), and growth rate ($p < 0.01$) still have significantly positive effects, and firm size ($p < 0.01$) has a significantly negative effect on the industry's median-adjusted perks/sales ratio.⁵ Overall, these results suggested that sample selection bias is not a serious threat to the main findings.

³ The detailed results are not reported here but are available upon request.

⁴ As in Lo and Wong (2011), the data on the regional legal environment index was from Fan et al. (2011).

⁵ The results of Heckman's two-stage regression are not reported here but are available upon request.

Measures

Dependent Variable

As previous studies of Chinese-listed companies have revealed (Gul et al. 2011; Luo et al. 2011), managerial perk consumption is reported under “other cash payment related to operating activity” in the cash flow statements. Specifically, these expenses are divided into eight categories in the financial reports—office expenses, travel expenses, entertainment expenses, communication expenses, overseas training fees, board of directors’ expenses, company car expenses and conference fees—and have been widely used to proxy for perks in previous studies (Adithiyangkul et al. 2011; Gul et al. 2011; Luo et al. 2011).

Similar to previous studies, we used the sum of the expenses reported in these eight categories as the basis for calculating perks, standardizing by sales revenue to adjust for the influence of firm size (Gul et al. 2011).

One might argue that scaling perks by sales biases our hypothesis 4 related to the size, as “sales” is one of these size measures. As expected, the raw measure of perks (in value term) or its log form is both highly and positively correlated with the firm size, while the essence of our hypothesis 4 is to test the “perks intensity” difference between large and small firms, i.e., the perk consumption level in our sample firms after the firm size effect is neutralized.

Another potential problem of scaling perks by sales is that the relationship between the two items may not be linear. To address this concern, we regressed perks on sales and the quadratic term of sales, and found the coefficients for sales and the quadratic term of sales were both significant at the 1 % significance level. However, their magnitudes differed greatly, at 0.007 for sales and -4.62×10^{-15} for the quadratic term of sales. When the cubic term of sales was added, similar results were found for its coefficient (-4.12×10^{-26} with p value below 0.01).⁶ The above results suggested overall that nonlinearity is not a serious issue, due to low economic significance.

One more concern is the possibility that at least some of these expenses simply contribute to normal company operation and growth, such that only above-normal expenses truly reflect perks. We used the industry median perks/sales ratio as a proxy for the normal level of administrative expenses, and hence the industry median-adjusted ratio of perks/sales as the dependent variable that captures perks. The industry median perk level was calculated as follows: we calculated the perks/sales ratio for each firm disclosing perk consumption, then took the median perks/sales ratio from the group of disclosers in one

focal industry as the adjustment. Therefore, the adjustment was based on a within-sample median rather than the population median. For a robustness check, we used the unadjusted measure, and this gave qualitatively comparable regression results.

Independent Variables

Private firm is a dummy variable that takes the value of 1 if a firm is a privately controlled listed firm and 0 otherwise. Our definition of a privately controlled listed company was as follows: if a listed company’s largest shareholder is a private company or an individual, then this company is a privately controlled listed company.

Managerial ownership was measured by the percentage of shares owned by the top management team (TMT) (Luo et al. 2011), defined as all executives who are at or above vice-president level (Hambrick et al. 1996; Tihanyi et al. 2000).

Growth rate Consistent with previous research (Alessandri et al. 2012; Luo et al. 2011), firm growth rate was measured as the annual growth in sales revenue. Specifically, the growth rate for firm i at year t was calculated as $(\text{sales}_t - \text{sales}_{t-1})/\text{sales}_{t-1}$.

Firm size was measured as the natural log of total assets (Alessandri et al. 2012; Luo et al. 2011).

Control Variables

To rule out alternative explanations for the determinants of perks, the following control variables based on findings in the literature were included in our model.

Largest shareholder’s ownership percentage To capture the influence of the largest shareholders on perk consumption, we used the percentage of shares held by the largest shareholder as a control variable (Luo et al. 2011).

ROA Firm profitability was controlled for using return on assets (ROA, %) (Adithiyangkul et al. 2011; Luo et al. 2011; Rajan and Wulf 2006; Yermack 2006).

Leverage Debt plays an important role in corporate governance (Shleifer and Vishny 1997). To capture the influence of debt holders on the provision of perks, we controlled for firm leverage, measured as the ratio of total debt to total assets (Adithiyangkul et al. 2011).

TMT compensation Fama (1980) argued that one form of compensation can be offset by adjusting other forms of compensation to optimize the contracts between managers and shareholders. To control for the possibility that various forms of managerial compensation may be related, we included nominal TMT income on the right-hand side of the regression equation. The nominal TMT income was measured as the cash compensation paid to the top three executives (Adithiyangkul et al. 2011; Luo et al. 2011) scaled by firm sales (%).

⁶ The detailed results are not reported but available upon request.

Industry concentration is a key determinant of the focal industry's competitive intensity. We used the Herfindahl industry concentration index to measure industry concentration (Zhang et al. 2010a, b). Following previous studies (Zhang et al. 2010a), industry classification was based on the China Securities Regulatory Commission's two-digit industry codes. Specifically, for a given firm i in an industry k with a total number of firms of N , the industry concentration was

$$\text{Industry concentration}_{ik} = \sum_{i=1}^N \left(\text{sales}_{ik} / \sum_{i=1}^N \text{sales}_{ik} \right)^2.$$

GDP per capita In China, the regional disparity in economic development is huge. The World Bank's (2006) survey of the investment climate in 120 Chinese cities reported that the average per-capita GDP in southeastern China was more than 50 % higher than in the northeast, and 150 % above the averages for central and southwestern China. Because the external economic environment affects firm behavior (Berry et al. 2010; Caves 1996), which may well include perk consumption, we used the natural log of city-level GDP per capita to control for different levels of regional economic development.

Industry and year dummies were included in the regression model.

Estimation Method

Using OLS regression, our basic methodology involved the examination of perks as a function of independent and control variables. Specifically, we estimated the following equation:

$$\begin{aligned} \text{Perks}_{i,t+1} = & \alpha_0 + \alpha_1 * \text{Private firm}_{i,t} \\ & + \alpha_2 * \text{Managerial ownership}_{i,t} \\ & + \alpha_3 * \text{Growth rate}_{i,t} + \alpha_4 * \text{Firm size}_{i,t} \\ & + \alpha_5 * \text{control variables}_{i,t} + \varepsilon_{i,t}. \end{aligned}$$

The industry median-adjusted intensity of perks for firm i in year $t + 1$ was regressed on independent and control variables for firm i in year t . We also used the industry median-adjusted intensity of perks in year t as a dependent variable, and obtained similar results. To estimate the significance level, we adjusted for firm effects by clustering the standard errors.

Results

Table 2 presents the means, medians, standard deviations, and extreme values of the tested perks in both absolute and relative terms. It shows that firms spent an average RMB19.45 (about US\$2.49 at the end of 2006) on perks for

each RMB1000 in sales revenue. The total amount of annual perk spending averaged RMB21.1 million (about US\$2.71 million at the end of 2006). Table 3 presents the means, standard deviations, and correlations for key variables.

We then tested the hypothesis by regression analysis. The dependent variable was the industry median-adjusted intensity of perks and the independent variables included four explanatory variables and all the control variables. Across the four models, explanatory variables were added stepwise. Table 4 summarizes the results of the regressions.

First, the coefficient for the private ownership dummy is positively significant, indicating that perk consumption is higher in private companies than in SOEs. The coefficient for managerial ownership is positive but insignificant, failing to support either hypothesis H2a or H2b. One possible explanation is that managerial ownership is so low (with a mean of 0.13 %) that it fails to align managers' and owners' interests and/or cannot capture the importance of managers in the firm. Table 4 also shows that the coefficient of firm growth rate is positive and significant while the firm size coefficient is negative and significant. These findings are consistent with Hypotheses 1b, 3b, and 4b, which support the incentive view, but contrast with the predictions for the cost view (Hypotheses 1a, 3a, and 4a).

As an additional robustness check, we replaced firm growth with the firm's free cash flow (results unreported but available upon request). As in Rajan and Wulf (2006), free cash flow was calculated as operating income before depreciation minus the sum of interest, taxes paid, and capital expenditures,⁷ which was then scaled by firm assets (Rajan and Wulf 2006). The result showed that free cash flow is negative and significantly related to perks, which again supports the incentive view of perks but is inconsistent with the prediction for the cost view.

The largest shareholder's ownership percentage and leverage control variables have significantly negative effects on perks in models 1–5, suggesting that the mechanism for monitoring by both owners and creditors works well in Chinese-listed firms when these stakeholders have substantial interests in their firms. ROA has a significantly negative effect on perks, potentially raising the question of whether perks negatively impact firm performance. To address this issue, we conducted a further test (unreported but available upon request), regressing perks for year t on the change in ROA between year t and year $t + 1$ ($ROA_{t+1} - ROA_t$). After controlling for the firm's financial and governance characteristics of year t , the perks for

⁷ Free cash flow = operating income + depreciation – interest – taxes – capital expenditures = cash flow from operations + net cash received from disposal of fixed assets, intangible assets, and other long-term assets – cash paid to acquire fixed assets, intangible assets, and other long-term assets.

Table 2 Summary statistics of perks

Variable	Mean	Median	SD	Min	Max
Perks (Thousand RMB)	21,100	8,000	66,900	0.91	1,600,000
Perks/Sales (‰)	19.45	9.77	35.26	0.00	666.67

This table reports the sample mean, median, standard deviation, minimum and maximum of perks and perks/sales (‰). Perks is the amount of perk expenses in thousand RMB. Perks/Sales (‰) is the ratio of perk expenses to sales revenue (‰)

year t were found to be significantly and positively associated with the change in ROA from year t to year $t + 1$, indicating that perks have a positive effect on the improvement in firm performance. TMT compensation has a significantly positive influence on perks and there is some evidence suggesting that GDP per capita has a positive effect on perks.

As an additional robustness check, we ran the same regressions with the unadjusted perks/sales as the dependent variable. The results are largely stable, as Table 5 shows.

Supplementary Analyses: The Role of Ownership Structure

Our results are largely consistent with the incentive view of perks, whereas previous studies (e.g., Yermack 2006) have found strong evidence supporting the cost view of perks. As explained earlier, the necessary factor for perks to be a form of incentive rather than a consequence of agency problems is the existence of a powerful controlling shareholder who has both the desire and the ability to monitor and incentivize managers (Shleifer and Vishny 1986). As also discussed, concentrated ownership structure is prevalent in China. Therefore, one interesting follow-up question is what the determinants of perks are for Chinese companies with dispersed ownership structures.

In a supplementary analysis, we divided the entire sample into two subgroups: a concentrated ownership group and a dispersed ownership group. The cutoff point was a largest shareholder's ownership percentage of 20 % or less.⁸

Table 6 presents the results. The results of model 12 show that for firms above the 20 % cutoff point, the private firm dummy and growth rate have significantly positive effects on perks, which is consistent with the incentive view. In the group below the 20 % point (model 11), these variables are no longer significant. Additionally, the effect of firm size on perks is more significant in model 12 than in model 11. These results suggest that the incentive view

receives stronger support in firms with higher ownership concentration. This finding supports the idea that if perks are to be used as an incentive tool, the owner must possess significant control rights.

We further explored the effect of ownership concentration by looking at firms with a majority-controlling shareholder, i.e., firms where the largest shareholder's ownership percentage is above 50 %. Models 13 and 14 in Table 6 display the results from the same regression conducted on two new subsamples: one where the largest shareholder's ownership percentage ranges from above 20 % up to and including 50 %, and the other where the largest shareholder's ownership percentage is higher than 50 %.⁹

The results in models 13 and 14 suggest that our findings supporting the incentive view obtained from the above-20 % control rights sample are mainly driven by the 20–50 % subgroup. Specifically, the results are highly consistent with the main results of model 12 and the main findings of Tables 4 and 5 in the 20–50 % subgroup. However, in the above-50 % subgroup, although the results for the private firm and firm size variables are consistent with the incentive view, the results for managerial ownership and growth rate support the cost view.

Overall, the findings in Table 6 suggest that the incentive view of perks mainly applies for firms with moderately high ownership concentration, i.e., largest shareholdings of 20–50 %, because this is the group of firms in which large shareholders have significant power to use perks for effective contracting but still rely heavily on managers to create value due to a lack of exclusive control. When ownership structure is highly dispersed (<20 %) or highly concentrated (>50 %), perks are less likely to be used as an incentive tool, for a range of reasons. When ownership is dispersed, we return to a situation similar to previous studies on the U.S. samples, i.e. the typical agency problem between strong managers and weak, remote owners. When the owner enjoys exclusive controlling rights over his/her

⁸ The cutoff point in La Porta et al. (1999) is 10 %, but in our sample that would leave only 19 observations for the dispersed ownership group. Consequently, to ensure a robust regression analysis, we report the results using a 20 % cutoff point.

⁹ Our cutoff points are consistent with the control definitions in current international accounting principles: between 20 and 50 %, the investor is considered to have significant influence on the investee, while above 50 %, the investor has exclusive controlling rights over the investee.

Table 3 Means, standard deviations, and correlations

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Perks/Sales (%)	19.45	35.26										
2. Private firm	0.24	0.43	0.17***									
3. Managerial ownership	0.13	1.30	0.07***	0.14***								
4. Growth rate	0.32	2.80	0.26***	0.01	0.003							
5. Firm size	21.12	0.98	-0.20***	-0.04**	-0.02	-0.02						
6. Largest shareholder's ownership percentage	0.42	0.17	-0.16***	-0.10***	-0.02	0.14***						
7. ROA	1.19	20.30	-0.12***	-0.07***	0.02	0.03*	0.15***	0.08***				
8. Leverage	0.52	0.43	0.12***	0.10***	-0.03**	0.01	-0.07***	-0.11***	-0.62***			
9. TMT compensation/Sales (%)	0.11	0.37	0.32***	0.13***	0.01	0.002	-0.26***	-0.12***	-0.21***	0.47***		
10. Industry concentration	0.04	0.09	0.07***	-0.02	0.001	0.001	0.09***	-0.04**	-0.01	0.02	0.05***	
11. GDP per capita	9.52	0.63	0.04**	0.001	0.08***	0.003	0.21***	-0.05***	0.03	0.01	0.05***	0.13***

This table reports the sample means and standard deviations of key variables, and correlations between variables. Perks/Sales (%) is the ratio of perk expenses to sales revenue (%). Private firm is a dummy variable that takes the value of 1 if a firm is a privately controlled listed firm and 0 otherwise. Managerial ownership is the percentage of shares owned by the top management team (TMT). Growth rate is the annual growth rate of sales revenue. Firm size is the natural log of total assets. Largest shareholder's ownership percentage is the percentage of shares held by the largest shareholder. ROA is return on assets (%). Leverage is the ratio of total debt to total assets. TMT compensation/Sales (%) is the cash compensation paid to the top three executives divided by firm sales (%). Industry concentration is the Herfindahl industry concentration index (based on sales revenue). GDP per capita is the natural log of city-level GDP per capita. Asterisks denote statistical significance at the 1 % (***), 5 % (**), and 10 % (*) level (two-tailed), respectively

listed firm, he/she is more deeply involved in the company and perks become less relevant as an incentive tool.

Discussion and Conclusion

Main Findings

Using data on a sample of Chinese-listed firms, we examined the ethicality of perks by comparing two alternative views seeing them as a cost or an incentive. We found that perk consumption is higher in privately controlled firms than state-controlled firms, is positively related to firm growth rate and negatively related to firm size. These findings are largely consistent with the predictions of the incentive view of perks. Furthermore, we found that the incentive view prediction mainly applies for firms with moderately high ownership concentration (i.e. 20–50 % of the largest shareholdings). The conclusion can be drawn from these findings that perks mainly serve as a kind of incentive, and perk consumption is less likely to be an agency cost in China.

Our results also validate some of the findings from the literature on agency theory-based explanations, i.e., the cost view of perks. For example, both ownership concentration and indebtedness reduce perk consumption, which suggests that in Chinese firms, the monitoring mechanisms exercised by both owners and creditors work well when their stake in the firm becomes substantial.

Contributions

As an initial probe into the ethicality of perks in an emerging economy, this article makes both theoretical and empirical contributions to the literature on business ethics and executive incentives.

First, we are among the first researchers to empirically test the competing theoretical perspectives of perks, thereby shedding new light on the ethicality of using perks. As previously discussed, there are two theories on perks, seeing them respectively as an unethical cost or an ethical incentive. Previous empirical studies, which have mainly been based on the U.S. publicly traded firms with dispersed ownership, have yielded inconclusive evidence for either view (Rajan and Wulf 2006; Yermack 2006). We took advantage of our unique research setting in which controlling shareholders are prevalent and there is a dichotomy between state-owned and privately controlled Chinese-listed firms, to test these two competing theoretical perspectives. Contrary to the commonly accepted cost view of perks (unethical use of perks), we found that perks can be an incentive in certain circumstances. This not only enhances common knowledge of the nature of perks; it also

Table 4 Regression results (industry median-adjusted perks/sales)

Variables	(1)	(2)	(3)	(4)	(5)
Private firm		7.95*** (2.38)	7.55*** (2.38)	7.64*** (2.34)	6.22*** (2.26)
Managerial ownership			1.03 (1.39)	1.04 (1.40)	0.97 (1.40)
Growth rate				3.32*** (0.77)	3.28*** (0.78)
Firm size					-5.29*** (0.92)
Largest shareholder's ownership percentage	-21.43*** (4.49)	-15.03*** (4.62)	-14.47*** (4.63)	-13.79*** (4.56)	-10.09** (4.43)
ROA	-0.17** (0.08)	-0.17** (0.08)	-0.17** (0.08)	-0.20** (0.09)	-0.15** (0.08)
Leverage	-8.73* (4.88)	-8.75* (4.80)	-8.58* (4.80)	-9.59* (4.97)	-7.54* (4.33)
TMT compensation/Sales (%)	29.93*** (6.15)	29.23*** (6.01)	29.18*** (6.02)	29.47*** (5.94)	25.29*** (5.65)
Industry concentration	-30.98 (75.67)	-31.03 (76.00)	-31.64 (76.03)	25.86 (29.76)	27.72 (29.61)
GDP per capita	0.65 (1.45)	0.79 (1.42)	0.63 (1.48)	0.61 (1.47)	1.76 (1.48)
Constant	12.16 (14.67)	6.13 (14.34)	7.17 (14.71)	6.58 (14.73)	106.01*** (21.95)
R^2	0.11	0.12	0.12	0.20	0.21
Adjusted R^2	0.11	0.12	0.12	0.19	0.20
F statistic	3.71	3.70	3.57	4.52	5.68
No. of observations	3,403	3,403	3,403	3,403	3,403

This table reports the OLS regression of the determinants of the industry median-adjusted perks/sales. The dependent variable is the industry median-adjusted ratio of perk expenses to sales revenue (%). Private firm is a dummy variable that takes the value of 1 if a firm is a privately controlled listed firm and 0 otherwise. Managerial ownership is the percentage of shares owned by the top management team (TMT). Growth rate is the annual growth rate of sales revenue. Firm size is the natural log of total assets. Largest shareholder's ownership percentage is the percentage of shares held by the largest shareholder. ROA is return on assets (%). Leverage is the ratio of total debt to total assets. TMT compensation/Sales (%) is the cash compensation paid to the top three executives divided by firm sales (%). Industry concentration is the Herfindahl industry concentration index (based on sales revenue). GDP per capita is the natural log of city-level GDP per capita. Industry and year dummies are included but not reported due to space limitations. Standard errors are in parentheses. Asterisks denote statistical significance at the 1 % (***), 5 % (**), and 10 % (*) level (two-tailed), respectively

contributes to a fuller understanding of the ethical issues of perk consumption around the world.

Second, our study has also revealed that the determinants of perks vary across firms with different ownership concentrations. Although perks may be employed as a self-enrichment tool by managers in firms with dispersed ownership, they can also be implemented as an incentive for managers. Using empirical evidence from Chinese listed firms, we found that the incentive view (ethical use of perks as an incentive) is more likely to be held in firms with moderate ownership concentration (greater than 20 % and less than 50 %), which helps to clarify the ethicality of perks in firms with different ownership structures.

Third, to the best of our knowledge, few studies before ours have investigated the determinants of perks in emerging

economies. While several studies of the U.S. firms have explored the determinants of perks (Rajan and Wulf 2006; Yermack 2006), in China related research has mainly focused on the consequences of perks (Adithipyangkul et al. 2011; Gul et al. 2011; Luo et al. 2011; Rajan and Wulf 2006; Yermack 2006). Investigating the determinants of perks in China, where controlling shareholders are common and dispersed shareholding is very rare, this study found that several ownership and financial characteristics influence perks. This contributes to our understanding of the determinants of perks in the institutional settings of emerging economies.

Fourth, this article contributes to the literature on executive incentive mechanisms under certain constraints. Typically in developed economies, formal cash compensation

Table 5 Regression results (unadjusted perks/sales)

Variables	(6)	(7)	(8)	(9)	(10)
Private firm		7.67*** (2.38)	7.26*** (2.38)	7.35*** (2.34)	5.95*** (2.26)
Managerial ownership			1.06 (1.40)	1.08 (1.40)	1.00 (1.41)
Growth rate				3.30*** (0.78)	3.26*** (0.79)
Firm size					-5.20*** (0.94)
Largest shareholder's ownership percentage	-21.36*** (4.51)	-15.19*** (4.64)	-14.61*** (4.65)	-13.93*** (4.58)	-10.30*** (4.46)
ROA	-0.18** (0.08)	-0.17** (0.08)	-0.17** (0.08)	-0.20** (0.09)	-0.16** (0.08)
Leverage	-8.83* (4.90)	-8.85* (4.82)	-8.67* (4.82)	-9.68* (4.99)	-7.66* (4.36)
TMT compensation/Sales (%)	30.11*** (6.16)	29.44*** (6.04)	29.39*** (6.05)	29.67*** (5.96)	25.57*** (5.68)
Industry concentration	-29.79 (76.12)	-29.84 (76.50)	-30.47 (76.52)	26.67 (30.50)	28.50 (30.42)
GDP per capita	0.66 (1.46)	0.79 (1.43)	0.62 (1.49)	0.61 (1.48)	1.74 (1.49)
Constant	21.02 (14.73)	15.20 (14.41)	16.28 (14.78)	15.69 (14.80)	113.40*** (22.55)
R^2	0.16	0.17	0.17	0.24	0.25
Adjusted R^2	0.15	0.16	0.16	0.23	0.24
F statistic	10.48	10.85	10.54	11.81	11.12
No. of observations	3,403	3,403	3,403	3,403	3,403

This table reports the OLS regression of the determinants of the unadjusted perks/sales. The dependent variable is the ratio of perk expenses to sales revenue (%). Private firm is a dummy variable that takes the value of 1 if a firm is a privately controlled listed firm and 0 otherwise. Managerial ownership is the percentage of shares owned by the top management team (TMT). Growth rate is the annual growth rate of sales revenue. Firm size is the natural log of total assets. Largest shareholder's ownership percentage is the percentage of shares held by the largest shareholder. ROA is return on assets (%). Leverage is the ratio of total debt to total assets. TMT compensation/Sales (%) is the cash compensation paid to the top three executives divided by firm sales (%). Industry concentration is the Herfindahl industry concentration index (based on sales revenue). GDP per capita is the natural log of city-level GDP per capita. Industry and year dummies are included but not reported due to space limitations. Standard errors are in parentheses. Asterisks denote statistical significance at the 1 % (***), 5 % (**), and 10 % (*) level, respectively (two-tailed)

(including salary and bonuses) and stock options are the most widely used forms of executive incentive. In China, however, due to social equity pressures, the formal monetary compensation of top managers is much lower (Firth et al. 2010; Gul et al. 2011; Luo et al. 2011), and TMT members are offered few stock options (Adithipyangkul et al. 2011). Therefore, an important unanswered question is how managers are motivated in Chinese firms. We found perks to be one of the most important alternative incentive tools in China, and this finding significantly advances our understanding of the evolution and adaptation of incentive schemes for top managers in an environment marked by social equity constraints.

Managerial Implications

In addition to its academic contribution, this study also yields strong managerial implications. First, our findings suggest that under certain social constraints, perks can be an important component of managerial incentive schemes. This finding has important implications for the design of firm incentive systems, suggesting that it is important to include perks. Additionally, our finding helps outsiders understand the complexity of employee incentives in China. This is especially important for new entrants into China, particularly foreign companies who know little about Chinese culture and social norms.

Table 6 Regression results for firms with different ownership structures

Variables	(11) Largest shareholder's ownership percentage \leq 20 %	(12) Largest shareholder's ownership percentage $>$ 20 %	(13) 20 % $<$ Largest shareholder's ownership percentage \leq 50 %	(14) Largest shareholder's ownership percentage $>$ 50 %
Private firm	7.10 (5.87)	6.39*** (2.40)	4.48* (2.38)	11.41* (6.44)
Managerial ownership	-1.44 (1.23)	1.48 (1.76)	1.59 (1.76)	-7.33* (4.26)
Growth rate	-1.94 (1.57)	3.32*** (0.75)	3.52*** (0.60)	-1.06* (0.62)
Firm size	-11.53* (6.33)	-4.96*** (0.96)	-5.61*** (1.34)	-4.34*** (1.20)
Largest shareholder's ownership percentage	-213.82* (128.17)	-10.28** (4.80)	-22.97** (10.61)	-2.54 (15.29)
ROA	-0.23* (0.13)	-0.14 (0.09)	-0.20* (0.11)	-0.07 (0.11)
Leverage	-14.62 (18.85)	-5.81 (3.92)	-6.51 (5.04)	-0.95 (2.53)
TMT compensation/ Sales (%)	26.92** (12.00)	23.33*** (8.61)	28.37*** (9.90)	5.15 (11.92)
Industry concentration	167.38* (87.53)	2.62 (31.59)	2.28 (39.70)	26.43 (16.93)
GDP per capita	-8.15 (6.13)	2.40 (1.49)	0.89 (2.04)	4.61** (2.12)
Constant	372.83** (145.66)	91.84*** (22.61)	123.31*** (30.49)	55.62** (26.21)
R^2	0.40	0.19	0.23	0.09
Adjusted R^2	0.33	0.18	0.22	0.07
F statistic	-	5.31	7.18	-
No. of observations	268	3,135	1,931	1,204

This table reports the OLS regression of the determinants of the industry median-adjusted perks/sales for firms with different ownership structures. The dependent variable is the industry median-adjusted ratio of perk expenses to sales revenue (%). Private firm is a dummy variable that takes the value of 1 if a firm is a privately controlled listed firm and 0 otherwise. Managerial ownership is the percentage of shares owned by the top management team (TMT). Growth rate is the annual growth rate of sales revenue. Firm size is the natural log of total assets. Largest shareholder's ownership percentage is the percentage of shares held by the largest shareholder. ROA is return on assets (%). Leverage is the ratio of total debt to total assets. TMT compensation/Sales (%) is the cash compensation paid to the top three executives divided by firm sales (%). Industry concentration is the Herfindahl industry concentration index (based on sales revenue). GDP per capita is the natural log of city-level GDP per capita. Industry and year dummies are included but not reported due to space limitations. Standard errors are in parentheses. Asterisks denote statistical significance at the 1 % (***), 5 % (**), and 10 % (*) level (two-tailed), respectively. F statistics are not reported in Stata for model 11 and 14

Second, our findings raise the issue of the long-term development of top managerial compensation systems in China. Although perks are an effective substitute for inadequate nominal income and lack of stock option plans in the short term, they also accentuate the information asymmetry problem. In the long term, this could be detrimental to firm value and society as a whole. We believe the roles of cash compensation and stock options could be improved to make the overall incentive scheme transparent and sustainable.

Limitations and Future Research Directions

We acknowledge some limitations that suggest a number of interesting avenues for future research. First, the generalizability of our conclusion requires further testing for other economies, as our study uses exclusively Chinese data. One possible direction for future study would be a cross-country comparison between various emerging and transitional economies.

Second, the measure of perks is based on accounting information publicly announced by listed companies. Such

archival data have the advantage of being accurate and accessible, but there are also disadvantages. Our measure may not directly capture perk consumption, because the reported expenses could have been used for other purposes, although we do tease out the industry median and firm size effect. In addition, since not all firms disclose information on perks, our industry median-adjusted perk measure is based on the median of all the voluntary disclosers and so only a crude proxy, potentially limiting the validity of our variable measurement. Furthermore, as our study only includes disclosers, sample representativeness is another limitation. To address this issue, future studies could use survey data to address the potential variable measurement and sampling bias issue, and see if the findings are consistent.

Third, although we find that perks are an incentive for managers, it would be interesting to further investigate whether the perk consumption is pre-specified in the contract between owners and managers or whether it is just an implicitly implemented social norm based on mutual understanding and trust. Given the nature of our archival data, we are unable to answer this question in the present study. A future study based on interviews or questionnaires could help to clarify this issue further.

Conclusion

To the best of our knowledge, this study is one of the first to investigate the ethicality of perks in an emerging economy. Our unique research setting of China enables us to empirically test two competing views of perks. Overall, our findings suggest that the incentive view (ethical use of perks) is largely supported and the cost view (unethical use of perks) receives less empirical support in China. We believe that our study advances understanding of the ethicality of perks and provides insights into the determinants of perks across countries. In light of the globally mixed findings in the West and the new corroborative findings from emerging economies such as China, it is imperative that scholars draw on the rich insights of other research settings (e.g., India, Brazil, and Russia) when exploring the ethicality of perks.

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Appendix

See Table 7.

Table 7 Definition of variables and sources of data

Variables	Definition	Data sources
Perks/sales (%)	The ratio of perks to sales revenue (%). Perks are the sum of office expenses, travel expenses, entertainment expenses, communication expenses, overseas training fees, board of directors' expenses, company car expenses and conference fees in a firm's cash flow statements	Hand-collected from firm's annual reports
Private firm	A dummy variable that takes the value of 1 if a firm is a privately controlled listed firm and 0 otherwise	CSMAR database
Managerial ownership	The percentage of shares owned by the top management team (TMT), defined as all executives who are at or above vice-president level	CSMAR database
Growth rate	The annual growth rate of sales revenue	CSMAR database
Firm size	The natural log of total assets	CSMAR database
Largest shareholder's ownership percentage	The percentage of shares held by the largest shareholder	CSMAR database
ROA	Return on assets (%)	CSMAR database
Leverage	The ratio of total debt to total assets	CSMAR database
TMT compensation/Sales (%)	The cash compensation paid to the top three executives divided by firm sales (%)	CSMAR database
Industry concentration	The Herfindahl industry concentration index of firms' sales revenue. Industry classification was based on the China Securities Regulatory Commission's two-digit industry codes	CSMAR database

Table 7 continued

Variables	Definition	Data sources
GDP per capita	The natural log of city-level GDP per capita	CSMAR database
Industry dummies	Dummy variables based on 2-digit industry classifications	CSMAR database
Year dummies	Dummy variables based on year of the sample companies	CSMAR database

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