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Economic sharing of honors: Equal or Exclusive?



Bofu Deng^a, Jiawei Liu^{b,*}, Li Ji^a

- ^a School of Accounting, Southwestern University of Finance and Economics, China
- ^b Dongwu Business School, Soochow University, Suzhou, China

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ABSTRACT

The objective of this study is to examine whether and how non-financial performances, specifically the awards achieved by the corporates, are associated with the distribution of the compensation of the managers and other employees within the corporations. Through an investigation of the correlation between corporate awards and compensation, we find that corporate awards as collective honors raise managers' compensation but significantly reduce non-managerial compensation, thus widening the pay gap within the company. Our empirical evidence also shows that these correlations are more significant in state-owned enterprises than non-state-owned enterprises. In addition, our evidence reveals that although corporate awards increase the stickiness of managers' compensation but not that of other employees, the corporate awards can still stimulate better financial performance and market value by motivating both managers and other employees. Our empirical evidence implies that because only managers are responsible for and evaluated by comprehensive corporate performance, the issues of fairness and efficiency are not raised when the economic benefits provided by corporate awards are unequally shared. © 2020 Sun Yat-sen University. Production and hosting by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

1. Introduction

In China, the disclosure of information on corporate awards plays an important role in annual reports, because it provides a concentrated presentation of positive social recognition of the corporation's historical non-financial performance. Although an increasing number of studies focus on the motivational effect of awards, they mainly focus on awards given by a group to individuals, overlooking those given by a group to another group (Huberman et al., 2004; Moldovanu et al., 2007; Besley and Ghatak, 2008; Angrist and Lavy, 2009;

E-mail address: jwliu@suda.edu.cn (J. Liu).

^{*} Corresponding author.

Ashraf et al., 2014; Chan et al., 2014; Ager et al., 2016; Shi et al., 2017). The cultures of East Asian countries such as China emphasize collectivism rather than individualism; thus, annual reports in these countries disclose more corporate awards than managers' personal awards. These awards are generally granted to groups by groups. Why are there so many kinds of corporate awards in China? These awards are granted by governments or industry associations to encourage corporations to pursue specific goals and standards. The awards are usually nonmonetary, but they occasionally include monetary rewards, which can be directly included in non-operating income. The awards help governments and industry associations guide corporations to comply with industrial policies, laws, and regulations. For example, the State-owned Assets Supervision and Administration Commission of the State Council, which supervises all central state-owned enterprises, has established targeted awards such as the Outstanding Performance Enterprise Award, Special Award for Scientific and Technological Innovation, Special Award for Management, Special Award for International Operation, Special Award for Brand Building, and Special Award for Energy Conservation and Emission Reduction, to reinforce the implementation of the Measures for the Assessment of Business Performance of Persons in Charge of Central SOEs, which are the comprehensive performance evaluation regulations issued by the State Council of the PRC in 2010.

Following Huberman et al. (2004), Ager et al. (2016), and Shi et al. (2017), corporate awards can be seen as a type of non-financial and non-monetary performance achieved by corporations as part of status competition within their industry. Accordingly, it is natural to ask whether this type of performance will affect the compensation of executives and other employees. Considering that corporate awards are achieved by collective efforts by the managers and other employees, we must further concentrate on whether the impact of awards on compensation is equal between executives and other employees.

We collect information on awards from the annual reports of Chinese A-share listed firms between 2008 and 2016. Our empirical evidence shows that corporate awards as collective honors raise managers' compensation but significantly reduce other employees' compensation, thus widening the pay gap within a given company. It also shows that these correlations are more significant in state-owned enterprises (SOEs) than non-SOEs and in corporations with greater managerial power. Further empirical evidence reveals that although corporate awards increase only the stickiness of managers' compensation, not the compensation of other employees, such awards can still stimulate better financial performance and market value by motivating both managers and non-managerial employees. Our empirical evidence implies that because only managers are responsible for and evaluated by comprehensive corporate performance, fairness and efficiency are not issues when the economic benefits provided by corporate awards are exclusive rather than shared equally.

This study makes three contributions to the literature. First, the literature on awards mainly focuses on their effect on individual behavior, considering them non-pecuniary rewards and exploring their economic effects, such as increasing the level of individual effort and stimulating work efficiency (Ashraf et al., 2014; Ager et al., 2016; Gallus and Frey, 2016). Therefore, our study extends the literature and theory related to the economic consequences of awards from the individual level to the firm level.

Second, there is a certain difference between the fairness of the distribution of economic benefits and the incentive effects of distribution, because paying too much attention to the fairness of distribution may reduce its incentive effect. We show that the correlations between corporate awards and the managers' versus ordinary employees' compensation are very different. However, these contrary results inspire better financial performance and market value. This empirical evidence is closely associated with the pay gap realities that currently exist in virtually every corporation. Thus, we extend the literature and gain a better understanding of the economic sharing of honors as a key factor in the pay gap (Lazear and Rosen, 1981).

Third, unlike the Western world, China emphasizes collectivism rather than individualism. As a result, awards are more often given by groups to groups rather than to individuals. However, our empirical evidence reveals that collective awards can lead to more benefits for top executives. As China's corporate governance institutions come from the Western world but incorporate Chinese characteristics such as collectivism, these results can help us better understand the nature of collectivism in China.

2. Theoretical analysis and hypothesis development

According to status competition theory put forwarded by Washington and Zajac (2005), and used to interpret the motivation effect of awards (Besley and Ghatak, 2008), we can understand there are different types of

awards have been created by people to recognize outstanding contributions or excellent work by specific individuals or groups, such as the Academy Awards for the film industry, the Nobel Prize in science and literature, and Olympic medals for sports. Previous studies on the motivational effect of awards show that based on its artificial scarcity, an award provides evidence of an individual's achievement in terms of status competition and acts as a non-material and non-pecuniary incentive, which can motivate people to do their jobs better by promoting social recognition (Frey and Fever, 2005; Frey, 2006, Frey, 2007, Frey and Neckermann, 2008; Kosfeld and Neckermann, 2011; Frey and Gallus, 2017). Of course, sometimes the specific awards are associated with some monetary rewards such as the Nobel prize. Although, we cannot deny the organizations or individuals in competitive situation are achievement-oriented in the pursuit of specific competitive outcomes, we propose that social status as the unearned ascription of social rank, can also play a meaningful role in competition (Washington and Zajac, 2005). Based on status competition theory, we hypothesize that corporations must fully disclose their achievements to reduce information asymmetry in relation to external investors. Moreover, corporate awards can provide rich information, which can often boost the position and status of corporations in industry competition. According, status competition theory can help us to understand the underlying logic of the disclosure of awards information, if we take corporations as integrated and independent entities. However, this theory cannot help us understand the motivations of the executives who manage corporations to disclose awards information in annual reports, because previous studies of awards based on the reputation theory concentrate on awards given by one group to specific individuals, although awards are often given by one group to another group (Angrist and Lavy, 2009; Ashraf et al., 2014; Chan et al., 2014; Ager et al., 2016). We must therefore turn to agency theory.

According to agency theory, due to information asymmetry between the principal and agent, compensation contracts are usually linked to executives' actual performance to limit moral hazard and adverse selection problems (Jensen and Meckling, 1990; Holmström, 1982). Unfortunately, the principal cannot collect and access all information on the activities of executives and company investment opportunities. It is therefore difficult to establish perfect contracts to avoid conflicts between executives' self-interest and shareholders' interests (Jensen and Murphy, 1990). This leads to the question of how to effectively measure the ability and performance of executives in relation to compensation contract incentives. Executives' compensation contracts are usually tied to the corporation's financial performance, because financial performance is easy to observe and collect information on. However, the bonus maximization hypothesis postulates that executives may manipulate financial earnings for their own benefit. Previous studies show that when executives' compensation is significantly related to their corporations' financial performance, managers are more likely to manipulate financial earnings to maximize their own compensation.

Due to the deficiencies of linking compensation contracts to financial performance, some scholars propose that they should be contingent on both financial and non-financial performance (Behn and Riley, 1999; Banker et al., 2000; Ittner et al., 2003; Ittner and Larcker, 2009; Ibrahim and Lloyd, 2011). Therefore, corporate executives need to find ways to prove their non-financial performance.

We observe some interesting features of the disclosure of awards in Chinese A-Share companies. We find that over time, more firms have begun to disclose information on awards in their annual reports, and most firms disclose their award information in their annual reports alongside their financial performance in the "Report of the Board of Directors" section. From the perspective of agency theory, it is clear that corporate awards can be an important supplement to financial performance. In other words, executives present these awards as evidence of their past non-financial performance.

Moreover, the institutional background of China related to the compensation contracts of SOE executives' compensation contracts can help us to understand the underlying motivations of the executives in disclosing awards information in annual reports. In China, the State-Owned Assets Supervision and Administration Commission of the State Council (SASAC) published "Measures for the Assessment of the Business Performance of Persons in Charge of Central Enterprises" in 2003 (amended in 2006) to assess more comprehensively the contributions of executives in SOEs. In this document, non-financial performance measures are introduced and their corresponding awards are highlighted as proof of non-financial performance, such as the Special Award for Scientific and Technological Innovation, the Special Award for Management Progress, the Special Award for International Operation, the Special Award for Brand Building, and the Special Award for Energy Conservation and Emission Reduction. SASAC declares that the awards earned by a firm can also

be used to determine whether executives are performing their duties, and thus to effectively allocate their compensation.

If awards indeed supplement financial performance by providing evidence of non-financial performance to prove the achievements of executives, we predict the following:

Hypothesis 1: Ceteris paribus, corporate awards are positively related to executive compensation.

East Asian culture emphasizes collectivism, and the corresponding awards are mostly given to collectives. Due to increasing marketization in China, collectivism has gradually been diluted by the personal performance evaluation system. As the product of collective efforts, corporate awards are obviously not the personal achievements of managers. However, neglecting the participation of ordinary employees may reduce the incentive effect of awards. Although corporate awards recognize all internal staff, under the existing performance appraisal system, managers and ordinary employees bear different levels of business responsibility. Managers are responsible for the overall operation and management of the company, while ordinary employees are mainly responsible for the completion of specific tasks. Therefore, corporate awards as forms of social recognition are more directly linked to management performance. In addition, under market-oriented salary reform, it is generally believed that ordinary employees have less influence on corporate management than managers, and it is difficult to distinguish between individual performance and group performance within an enterprise; there may be an unfair distribution of benefits from corporate awards between managers and ordinary employees. Corporate decentralization improves managers' bargaining power for their compensation contracts (Fang and Li, 2015) and enables them to use non-financial performance to achieve greater compensation, which further strengthens the positive impact of corporate awards on executive compensation and weakens their impact on the performance evaluations of ordinary employees. Based on this, we propose Hypothesis 2:

Hypothesis 2: Ceteris paribus, corporate awards have no significant impact on the salaries of non-executive employees.

Within the special institutional setting of China, SOEs have the advantage of scale and institutional advantages compared with non-SOEs. However, they bear a greater social burden and attract more social attention. Thus they are supervised and evaluated by more social stakeholders. The results of social welfare based evaluation are sometimes directly included in the scope of performance evaluation, inducing SOEs to improve their contribution to social welfare. To comprehensively improve the competitiveness of state-owned enterprises, the State-owned Assets Supervision and Administration Commission of the State Council clearly stipulated in 2016 that the "Measures for the Performance Evaluation of the Heads of Central Enterprises" set up the Excellent Enterprise Award, Science and Technology Innovation Special Award, Management Progress Special Award, International Management Special Award, Brand Construction Special Award, and Energy Conservation and Emission Reduction Special Award to subject management efforts to greater scrutiny. It can be seen that the inspection of state-owned enterprises' financial performance, compared with that of private enterprises, cannot effectively reflect managers' efforts and capability. It is important for managers of SOEs to stand out in the social comparison and evaluation process. This not only means that SOEs must obtain more social attention and recognition in the award-related fields, but in addition, they must promote relevant industrial policies and achieve social and economic development goals. Based on this, Hypothesis 3 is proposed.

Hypothesis 3: Ceteris paribus, compared with non-SOEs, the awards of SOEs have a greater impact on executive compensation.

3. Research design

3.1. Data collection and sample composition

This study uses a sample of Chinese A-share companies listed on the Shanghai and Shenzhen stock exchanges between 2008 and 2016. The sample selection process is as follows: (1) financial listed companies and special treatment companies are deleted, (2) samples with missing data, such as corporate financial and corporate governance related characteristics, are supplemented according to the mean value, and (3) samples

with an annual number of less than 10 observations in the industry are eliminated. The sample data used in this study are from the CSMAR database, except that the corporate awards data are manually collected.

The data on corporate awards are collected using the following steps. First, we download the PDF files of all corporate annual reports, then search for keywords related to corporate awards, such as "Acquired," "Issued," "Won," "Granted," "Selected," "Finalist," "Progress Award," "Honor," and "Awarded." Second, we use Python to capture the sentences before and after these keywords in annual reports in an Excel table. Third, we manually compare the information in this Excel table with the annual reports in PDF format to determine whether it is related to corporate awards. If so, we determine to which award category this information belongs (national awards, issued by the central government, such as the National Science and Technology Progress Award; local awards, issued by local governments, such as the Shanghai Mayor's Quality Award; and industry association awards, issued by non-governmental industry associations, such as China's AAA Credit Enterprise in the plastics industry). We do so by entering the name of the award in the Baidu search engine, to obtain information about the award-issuing institution based on the news item directly related to the award, and to determine the category based on the characteristics of the award-issuing institution. For example, the National Science and Technology Progress Award is given by the State Council of the People's Republic of China, so it is classified as a national award. As the key steps in collecting and collating award data are manual verification and judgment, this can reduce noise in textual analysis. When the same award appears several times in the same annual report of the same company, it is counted only once.

According to the nature of the awarding unit, corporate awards are divided into three types: national, local, and industry association awards. National awards include the National Science and Technology Progress Award, China Time-honored Brand, and China Top Brand, and are issued by the central government department. Local awards include Top 10 Innovative Enterprises in Shantou, Lanzhou Civilized Unit, and Leading Enterprises in Zhejiang Province, and are issued by local government departments. Industry association awards include Top 100 Pharmaceutical Companies in China, Top 500 Manufacturing Enterprises in China, and Top 100 National Software Enterprises, and are issued by industry associations.

3.2. Models and variables

To test Hypothesis 1, we design a multiple regression model (1). In this model, the dependent variable is executive compensation (*EXEPAY*, which is obtained by taking the logarithm of the average salary of directors, supervisors, and executives), and the explanatory variable in this paper contains four specific variables related to corporate awards, which are *Award*, *C_Award*, *P_Award*, *I_Award*. We set *Award* which is the

Table I			
Descriptive statistics	of the 1	main	variables.

Variable	N	Mean	SD	P25	P50	P75	Min	Max
EXEPAY	16,433	12. 112	0.672	11.682	12.109	12.544	10.423	13.896
EMPAY	16,433	11. 277	0.582	10.907	11.241	11.597	9.984	13.239
Award	16,433	0.518	0.500	0	1	1	0	1
C Award	16,433	1.343	2.400	0	0	2	0	13
P Award	16,433	0.867	2.223	0	0	1	0	14
I Award	16,433	0.971	2.446	0	0	0	0	14
Size	16,433	21.894	1.204	21	21.731	22.590	19.726	25.597
ROA	16,433	0.048	0.053	0.017	0.0430	0.076	-0.128	0.217
LEV	16,433	0.423	0.214	0.248	0.416	0.592	0.044	0.871
BM	16,433	0.851	0.828	0.328	0.574	1.029	0.087	4.626
Growth	16,433	0.429	1.127	-0.031	0.147	0.487	-0.639	8.182
DUAL	16,433	0.251	0.434	0	0	1	0	1
DR	16,433	0.370	0.052	0.333	0.333	0.400	0.333	0.571
SHRCR1	16,433	35.903	14.992	23.950	34.160	46.438	9	74.824
SHRZ	16,433	11.844	20.950	1.874	4.174	11.522	1.003	134.696
STATE	16,433	0.406	0.491	0	0	1	0	1

Table 2 Corporate awards and executive compensation.

	(1) EXEPA Y	(2) EXEPA Y	(3) EXEPAY	(4) EXEPA Y
Award	0.06318***			
	(6.44)			
C_Award	, ,	0.00953***		
		(4.97)		
P_Award			0.00469**	
			(2.49)	
I_Award				0.00986***
				(5.59)
Size	0.30825***	0.30576***	0.31175***	0.30844***
	(56.96)	(55.23)	(57.89)	(56.90)
ROA	2.52090***	2.51345***	2.51708***	2.50570***
	(26.82)	(26.73)	(26.75)	(26.64)
LEV	-0.05252*	-0.06082^{**}	-0.05841^{**}	-0.05952^{**}
	(-1.85)	(-2.14)	(-2.05)	(-2.10)
BM	-0.08695^{***}	-0.08514***	-0.08808***	-0.08669^{***}
	(-10.42)	(-10.18)	(-10.55)	(-10.39)
Growth	-0.02346^{***}	-0.02403^{***}	-0.02424^{***}	-0.02396^{***}
	(-5.97)	(-6.12)	(-6.17)	(-6.10)
DUAL	-0.04001^{***}	-0.03969^{***}	-0.03963^{***}	-0.04028^{***}
	(-4.00)	(-3.96)	(-3.95)	(-4.02)
DR	0.44354***	0.43567***	0.42974***	0.43428***
	(5.49)	(5.39)	(5.31)	(5.37)
SHRCR1	-0.00305^{***}	-0.00296^{***}	-0.00301^{***}	-0.00304^{***}
	(-9.53)	(-9.26)	(-9.41)	(-9.51)
SHRZ	-0.00087^{***}	-0.00092^{***}	-0.00092^{***}	-0.00090^{***}
	(-3.87)	(-4.10)	(-4.08)	(-4.01)
STATE	-0.04487***	-0.04502***	-0.04369***	-0.04578^{***}
	(-4.38)	(-4.39)	(-4.26)	(-4.47)
Constant	4.78799****	4.86063***	4.73844***	4.79878***
	(31.04)	(31.11)	(30.73)	(31.06)
Industry	YES	YES	YES	YES
Year	YES	YES	YES	YES
N	16,433	16,433	16,433	16,433
adj. R^2	0.403	0.403	0.402	0.403
F	121.67	121.36	121.03	121.48

^{***} Indicates significance at the 1% level (two-tailed).

dummy variable to determine whether the company has won an award. If the company has won an award in the current year, it is assigned the value of 1, and otherwise 0. Other variables related to corporate awards are the number of national awards (C_Award), the number of local awards (P_Award), and the number of industry association awards (I_Award).

$$EXEPAY_{i,t} = \alpha + \beta * X_{i,t} + \gamma * Controls + \varepsilon_{i,t}$$
(1)

If Hypothesis 1 is correct, which means that corporate awards can increase executives' compensation, the variables related to corporate awards should be positively correlated with *EXEPAY*.

To test Hypothesis 2, we design a multiple linear regression model (2). The dependent variable is the salary of ordinary employees (*EMPAY*). To calculate this variable, we use the overall salary of the corporation's staff minus the total salary paid to directors, supervisors, and executives, divided by the number of employees in the company other than directors, supervisors, and executives, and then take the logarithm. The explanatory vari-

^{**} Indicates significance at the 5% level (two-tailed).

^{*} Indicates significance at the 10% level (two-tailed).

ables are corporate awards: the dummy variable (Award), the number of national awards (C_Award), the number of local awards (P_Award), and the number of industry association awards (P_Award).

$$EMPAY_{i,t} = \alpha + \varphi * X_{i,t} + \eta * Controls + \varepsilon_{i,t}$$
(2)

If Hypothesis 2 is true, corporate awards have no significant effect on non-executive salaries; thus, the coefficient of the independent variable will not be significant. In addition, to test Hypothesis 3, we conduct subsample regressions on model (1) and model (2) according to differences in corporate property rights (STATE).

In addition, the control variables in models (1) and (2) include the size of the company (SIZE, measured by the natural logarithm of corporate total assets at the end of the year); financial leverage (LEV, measured by the corporate assets-liabilities ratio at the end of the year); financial performance (ROA, measured by the ratio of net profit to total assets at the end of the year); book-to-market ratio (BM, measured by the ratio of year-end total assets to corporate market value); development capacity (GROWTH, measured by the growth rate of operating revenue compared to the previous year); DUAL (a dummy variable; if the CEO and chairman of board are not the same person, it is equal to 1, and otherwise 0); the proportion of independent directors

Table 3
Corporate awards and the salary level of ordinary employees.

	(1) EMPAY	(2) EMPAY	(3) EMPAY	(4) EMPAY
Award	-0.03813*** (-4.22)			
C_Award	,	-0.00330* (-1.87)		
P_Award		, ,	-0.00302* (-1.74)	
I_Award			, ,	-0.00202 (-1.24)
Size	0.08637*** (17.34)	0.08619*** (16.92)	0.08428*** (17.02)	0.08471*** (16.98)
ROA	0.57173*** (6.61)	0.57449***	0.57416*** (6.64)	0.57511*** (6.64)
LEV	-0.16878*** (-6.46)	$ \begin{array}{c} (6.64) \\ -0.16428^{***} \\ (-6.28) \end{array} $	-0.16524*** (-6.32)	-0.16483^{***} (-6.30)
BM	-0.46) -0.03524*** (-4.59)	-0.03558^{***}	-0.03455^{***}	-0.03485^{***}
Growth	0.00669*	(-4.62) 0.00711**	(-4.50) 0.00716**	(-4.54) 0.00714^{**}
DUAL	(1.85) -0.01683*	(1.97) -0.01709*	(1.98) -0.01705*	(1.97) $-0.01701*$
DR	(-1.83) 0.05083	(-1.85) 0.05750	(-1.85) 0.05911	(-1.84) 0.05884
SHRCR1	(0.68) 0.00141***	(0.77) 0.00137***	(0.79) 0.00139***	(0.79) 0.00139***
SHRZ	(4.80) 0.00028	(4.66) 0.00031	(4.72) 0.00031	(4.73) 0.00031
STATE	(1.36) 0.20558***	(1.52) 0.20511***	(1.50) 0.20490***	(1.50) 0.20495***
Constant	(21.83) 8.82365***	(21.76) 8.81251***	(21.74) 8.85336***	(21.73) 8.84321***
Industry	(62.16) Yes	(61.31) Yes	(62.43) Yes	(62.19) Yes
Year	Yes	Yes	Yes	Yes
N adj. R^2	16,433 0.326	16,433 0.325	16,433 0.325	16,433 0.325
F	87.38	87.15	87.14	87.12

^{***} Indicates significance at the 1% level (two-tailed).

^{**} Indicates significance at the 5% level (two-tailed).

^{*} Indicates significance at the 10% level (two-tailed).

Table 4
Corporate awards and salaries in state-owned enterprises and non-state-owned enterprises.

	STATE = 1	STATE = 0	STATE = 1	STATE = 0
	EXEPAY	EXEPAY	EMPAY	EMPAY
Award	0.10061***	0.04046***	-0.04703***	-0.01882*
	(6.07)	(3.28)	(-2.83)	(-1.78)
Size	0.27964***	0.33837***	0.09858***	0.05622***
	(35.74)	(43.61)	(12.56)	(8.46)
ROA	2.83550***	2.21454***	0.70810***	0.62317***
	(18.54)	(18.50)	(4.62)	(6.08)
LEV	-0.14758^{***}	-0.05238	$-0.16\overline{174}^{***}$	-0.16753^{***}
	(-3.28)	(-1.40)	(-3.59)	(-5.23)
BM	-0.04986^{***}	-0.10605^{***}	-0.05483^{***}	0.03176**
	(-4.65)	(-7.26)	(-5.09)	(2.54)
Growth	-0.00515	-0.03658^{***}	0.01881***	-0.00682
	(-0.92)	(-6.77)	(3.34)	(-1.47)
DUAL	0.01719	-0.05274^{***}	-0.06819^{***}	0.00164
	(0.79)	(-4.64)	(-3.13)	(0.17)
DR	0.27303**	0.67178***	-0.11567	0.14323
	(2.12)	(6.46)	(-0.89)	(1.61)
SHRCR1	-0.00413***	-0.00189^{***}	0.00605***	-0.00153^{***}
	(-8.08)	(-4.53)	(11.80)	(-4.28)
SHRZ	-0.00038	-0.00194^{***}	-0.00042	-0.00004
	(-1.42)	(-4.58)	(-1.57)	(-0.10)
Constant	5.34318***	4.24495***	8.48413***	9.89422***
	(26.16)	(17.57)	(41.41)	(47.82)
Industry	YES	YES	YES	YES
Year	YES	YES	YES	YES
Chi-square		11.74***		8.70***
P value		0.0006		0.0032
N	6676	9757	6676	9757
adj. R^2	0.462	0.388	0.331	0.320
F	68.41	72.07	39.82	53.66

^{***} Indicates significance at the 1% level (two-tailed).

(DR, measured by the ratio of the number of independent directors to board members); large shareholding ratio (SHRCR1, measured by the shareholding ratio of the largest shareholder); balance of equity (SHRZ, measured by the ratio of the shareholding of the largest shareholder to the second largest shareholder); and the nature of property rights (STATE, equal to 1 if it is a state-owned enterprise, and otherwise 0). In addition, we control for fixed year and industry effects.

4. Empirical results

4.1. Descriptive statistics

The general descriptive statistics of the main variables are given in Table 1. It can be seen that the average value of executive compensation is 12.112, with a standard deviation of 0.672, and the average salary of ordinary employees is 11.277, with a standard deviation of 0.582. Thus, the differences of these values within the sample are small. Award-winning companies account for 51.8% of the sample, and the mean values of the number of national awards (C_Award), local awards (P_Award), and industry association awards (P_Award) are 1.343, 0.867, and 0.971. In addition, the average assets-liabilities ratio is 42.3%, and the mean value of ROA is 4.8%. Development capacity has a growth rate of 42.9%, and 40.6% of the sample consists of state-owned companies.

^{**} Indicates significance at the 5% level (two-tailed).

^{*} Indicates significance at the 10% level (two-tailed).

Table 5
Corporate awards and salary within the company under different levels of managerial power.

	(1) EXEPAY	(2) EXEPAY	(3) EXEPAY
C_Award	-0.00314 (-0.85)		
Tenure*C_Award	0.00099* (1.68)		
P_Award	(1.00)	-0.00735^{**} (-2.02)	
Tenure*P_Award		0.00183*** (2.77)	
I_Award		(2.11)	-0.00488 (-1.46)
Tenure* I_Award			0.00232***
Tenure	0.01777*** (9.35)	0.01768*** (10.01)	(4.25) 0.01642***
Size	0.25697***	0.25788***	(9.17) 0.25551***
ROA	(35.19) 2.97321***	(36.27) 2.97755***	(35.70) 2.96913***
LEV	(24.18) -0.06638*	(24.22) -0.06684*	(24.16) -0.06606*
BM	(-1.79) -0.09503^{***}	(-1.80) -0.09495^{***}	(-1.78) -0.09442^{***}
Growth	(-8.69) -0.02172***	(-8.70) -0.02171^{***}	(-8.65) -0.02173^{***}
DUAL	(-4.22) 0.09533***	(-4.23) 0.09524***	(-4.23) 0.09456***
DR	$(7.23) \\ -0.39262^{***}$	(7.22) -0.39412***	(7.17) -0.39296^{***}
SHRCR1	(-3.71) -0.00307^{***}	(-3.73) -0.00309^{***}	(-3.72) -0.00308^{***}
SHRZ	(-7.24) -0.00093^{***}	(-7.29) -0.00093^{***}	(-7.26) -0.00092^{***}
STATE	(-3.18) 0.02198	(-3.17) 0.02127	(-3.13) 0.02024
Constant	(1.64) 7.07167***	(1.59) 7.05198***	(1.51) 7.08875***
Industry	(34.55) YES	(34.91) YES	(35.02) YES
Year	YES	YES	YES
N adj. R^2	16,433 0.237	16,433 0.238	16,433 0.238
F	55.40	55.47	55.69
	EXEPAY	EXEPAY	EXEPAY
C_Award	-0.00236 (-0.83)		
DUAL*C_Award	0.01982***		
P_Award	(3.78)	-0.00381	
DUAL*P_Award		(-1.34) 0.01635***	
I_Award		(2.92)	0.00540**
DUAL* I_Award			(2.03) 0.00260 (0.52)

	EXEPAY	EXEPAY	EXEPAY
DUAL	0.08561***	0.09881***	0.11073***
	(5.67)	(7.00)	(7.88)
Size	0.26750***	0.27004***	0.26779***
	(36.81)	(38.23)	(37.62) 2.94469***
ROA	2.94901***	2.95000***	2.94469***
	(23.90)	(23.90)	(23.85)
LEV	-0.05997	-0.05509	-0.05774
	(-1.61)	(-1.48)	(-1.55)
BM	-0.09805***	-0.09998^{***}	-0.09889^{***}
	(-8.93)	(-9.13)	(-9.03)
Growth	-0.02319***	-0.02355***	-0.02340^{***}
	(-4.50)	(-4.57)	(-4.54) -0.36800^{***}
DR	-0.37205***	$-0.3\overline{6904}^{***}$	
	(-3.51)	(-3.48)	(-3.47)
SHRCR1	-0.00387^{***}	-0.00392^{***}	-0.00393^{***}
	(-9.22)	(-9.33)	(-9.37)
SHRZ	-0.00071^{**}	-0.00069^{**}	-0.00068^{**}
	(-2.41)	(-2.35)	(-2.31)
STATE	0.02102	0.02070	0.01836
_	(1.56)	(1.54)	(1.37)
Constant	6.92028***	6.86864***	6.91041***
	(33.76)	(33.96)	(34.05)
Industry	YES	YES	YES
Year	YES	YES	YES
N	16,433	16,433	16,433
adj. R^2	0.232	0.231	0.231
F	54.26	54.17	54.15

^{***} Indicates significance at the 1% level (two-tailed).

4.2. Empirical analysis

Table 2 shows the regression results of the multiple regression model (1). It can be seen that corporate awards are significantly positively related to executive compensation (*EXEPAY*) at the 1% level. Regarding the types of corporate awards, the higher the number of national, local, or industry awards a company receives, the higher the increase in executive compensation, which supports Hypothesis 1. Therefore, the empirical results show that as a type of non-financial performance, corporate awards highlight management's efforts and capabilities (Ager et al., 2016; Shi et al., 2017), thus influencing managers' compensation contracts.

In Table 3, we report the results of the regression of model (2) for Hypothesis 2, in which the explanatory variable is the salary level of ordinary employees (*EMPAY*). The results show that the salary of ordinary employees has a significant negative relationship with corporate awards, which fails to support Hypothesis 2. Corporate awards increase managers' bargaining power for their compensation contracts, thus weakening it for ordinary employees.

To enhance the competitiveness of state-owned enterprises, the State-owned Assets Supervision and Administration Commission of the State Council issued the Operation Performance of the Head of the Central Enterprise, and set up the Outstanding Enterprise Award, Special Award for Technology Innovation, Special Award for Management Progress, and Special Award for Brand Building to reward managers' efforts and capabilities in state-owned enterprises, indicating that corporate awards have a greater impact on the performance appraisal of internal staff in state-owned enterprises. The results reported in Table 4 show that the impact of corporate awards on the compensation of managers and ordinary employees is more significant in SOEs than non-SOEs.

^{**} Indicates significance at the 5% level (two-tailed).

^{*} Indicates significance at the 10% level (two-tailed).

Table 6 Corporate awards and pay stickiness within the company.

	(1) EXEPAY	(2) EMPAY
Award	-0.01200	-0.09672***
	(-0.53)	(-4.88)
ROA	2.41737***	0.68431***
	(10.99)	(3.55)
D	0.04991***	0.00771
	(2.72)	(0.48)
ROA*Award	1.38792***	0.67398***
	(4.72)	(2.61)
D*ROA	-0.04128	-0.49845^{**}
	(-0.16)	(-2.24)
D*Award	0.03117	0.05452**
	(1.21)	(2.42)
Award*ROA*D	-1.00278^{***}	-0.31248
	(-2.85)	(-1.01)
Size	0.31077***	0.08551***
	(54.72)	(17.17)
LEV	-0.00748	-0.16920^{***}
	(-0.25)	(-6.42)
BM	-0.11971***	-0.03354^{***}
~ .	(-13.65)	(-4.36)
Growth	-0.02437***	0.00641*
DYLLY	(-5.91)	(1.77)
DUAL	0.06558***	-0.01560*
n n	(6.24)	(-1.69)
DR	-0.15550*	0.05110
CHD CD1	(-1.83)	(0.69)
SHRCR1	-0.00268****	0.00140***
CHPZ	(-7.97)	(4.76)
SHRZ	-0.00082***	0.00028
CT ATE	(-3.47) 0.04341^{***}	(1.34) 0.20704***
STATE		
C	(4.03) 5.72825***	(21.95) 8.83435***
Constant		
T., J.,	(35.25) YES	(62.02) YES
Industry	YES	
Year	ROA* Award coefficient d	YES lifference test
Chi-square		3.76*
P value		0.0525
N	16,433	16,433
adj. R^2	0.377	0.327
F	103.35	83.36

^{***} Indicates significance at the 1% level (two-tailed).

5. Further test

5.1. Managerial power

Li and Hu (2012) argue that firms' compensation structures are influenced by managerial power. Therefore, based on the above analyses and findings, we further investigate the impact of managerial power on the relationship between compensation and corporate awards. Following Adams et al. (2005) and Pathan (2009), we

^{**} Indicates significance at the 5% level (two-tailed).

^{*} Indicates significance at the 10% level (two-tailed).

Table 7 Incentive effects of corporate awards.

	(1) F_ROA	(2) F_TFP	(3) F_ROA	(4) F_TQ	(5) F_TFP	(6) F_TQ
Award	0.00219*** (3.37)	0.22679*** (7.75)	-0.02041^{**} (-2.06)	-1.35501*** (-4.41)	-0.89079* (-1.81)	-1.88072*** (-5.52)
EXEPAY	(=12.)	()	0.00393**** (5.90)	0.01252 (0.61)	(-11-1)	()
Award*EXEPAY			0.00185** (2.26)	0.10343*** (4.07)		
EMPAY			(2.20)	(,	0.34484*** (11.49)	0.11340*** (5.46)
Award* EMPAY					0.10086** (2.30)	0.15907*** (5.24)
Size	0.00284*** (7.92)	-0.56730^{***} (-35.20)	0.00131**** (3.35)	-0.42188^{***} (-34.68)	-0.60271^{***} (-37.24)	-0.41884^{***} (-37.41)
ROA	0.53150**** (85.31)	2.92454*** (10.45)	0.51920**** (81.79)	1.71161****	2.69866*** (9.70)	1.76469*** (9.16)
LEV	-0.01235^{***}	0.57168***	-0.01221^{***}	0.30123***	0.63246***	0.32773***
BM	(-6.56) -0.00614^{***} (-11.11)	(6.75) 0.18716***	(-6.49) -0.00566^{***} (-10.21)	$ \begin{array}{c} (5.16) \\ -0.27297^{***} \\ (-15.87) \end{array} $	(7.52) 0.20322****	(5.63) -0.27279*** (-15.96)
Growth	-0.00007	(7.53) 0.07521***	0.00003	-0.00503	(8.23) 0.07253***	-0.00770
DUAL	(-0.29) -0.00037	(6.42) -0.01373	(0.12) -0.00017	(-0.62) -0.05821^{***}	(6.23) -0.00618	(-0.96) -0.05681^{***}
DR	(-0.56) -0.01197^{**}	(-0.46) -0.02094	(-0.26) -0.01401^{***}	(-2.83) 0.74129^{***}	(-0.21) -0.03349	(-2.77) 0.76465***
SHRCR1	(-2.23) 0.00011^{***}	(-0.09) 0.00468^{***}	(-2.62) 0.00012^{***}	(4.46) -0.00310^{***}	(-0.14) 0.00414^{***}	-0.00353^{***}
SHRZ	(5.03) -0.00006****	(4.92) -0.00224^{***}	(5.71) -0.00006****	(-4.71) 0.00159^{***}	(4.38) -0.00237^{***}	(-5.39) 0.00148^{***}
STATE	(-4.10) -0.00044	(-3.37) -0.01839	(-3.84) -0.00025	(3.46) 0.13921***	(-3.58) -0.10086^{***}	(3.23) 0.09632***
Constant	(-0.65) -0.03557^{***}	(-0.60) 12.76087^{***}	(-0.37) -0.04699^{***}	(6.62) 11.29342***	(-3.28) 9.88063***	(4.53) 10.19655***
T. 1	(-3.48)	(27.81)	(-4.01)	(31.02)	(17.95)	(26.76)
Industry Year	YES YES	YES YES	YES YES	YES YES	YES YES	YES YES
<i>N</i>	16,334	16,334	16,334	16,334	16,334	16,334
adj. <i>R</i> ² F	0.471 158.78	0.303 78.07	0.474 157.27	0.372 103.83	0.313 80.03	0.375 105.41

^{***} Indicates significance at the 1% level (two-tailed).

Table 8 Propensity score model (PSM) results.

	ATT		T-stat	
	Treatment Group	Control Group	Difference	
EXEPAY	12.161	12.114	0. 046	3.23***
EMPAY	11.216	11.354	-0.138	-10.82***

^{***} Indicates significance at the 1% level (two-tailed).

^{**} Indicates significance at the 5% level (two-tailed).

^{*} Indicates significance at the 10% level (two-tailed).

^{**} Indicates significance at the 5% level (two-tailed).

^{*} Indicates significance at the 10% level (two-tailed).

Table 9 Corporate awards and the salaries of employees.

D 1.4	(1)	(2)	(3)	(4)
Panel A	EXEPA Y	EXEPA Y	EXEPAY	EXEPAY
Award	0.0683***			
	(5.09)			
C_Award		0.0121***		
		(3.80)		
P_Award			0.0064*	
			(2.29)	***
I_Award				0.0097***
				(3.53)
Controls	YES	YES	YES	YES
Industry	YES	YES	YES	YES
Year	YES	YES	YES	YES
N	5990	5361	4267	4048
adj. R^2	0.418	0.420	0.407	0.430
F	51.01	46.58	36.66	37.84
Panel B	EMPAY	EMPAY	EMPAY	EMPAY
Award	-0.0387^{***}			
	(-3.34)			
C_Award		-0.0056*		
		(-2.06)		
P_Award			-0.0039	
			(-1.57)	
I_Award				-0.0052*
				(-2.26)
Controls	YES	YES	YES	YES
Industry	YES	YES	YES	YES
Year	YES	YES	YES	YES
N	5990	5361	4267	4048
adj. R^2	0.373	0.354	0.312	0.389
F	42.40	35.52	24.56	32.09

^{***} Indicates significance at the 1% level (two-tailed).

take whether the CEO and chairman of the board are the same person and CEO tenure as proxy variables for managerial power. The results reported in Table 5 show that the multiplier coefficients of managerial power (*Tenure*, *DUAL*) and corporate awards (*C_Award*, *P_Award*, and *I_Award*) are positive, indicating that the greater the managerial power, the greater the impact of corporate awards on executive compensation.

5.2. Corporate awards and pay stickiness

Previous studies find that changes in the compensation structure between ordinary employees and executives are mainly caused by the stickiness of executive compensation (Fang, 2009), and by differences in the variation of compensation between ordinary employees and executives when financial performance increases or decreases (Fang, 2011). We use the compensation stickiness model to test the variation of compensation structure. The dummy variable D equals 1 if financial performance of this year is worse than last year, and otherwise 0. The results in Table 6 show that the increase in executive salary when financial performance rises is 1.3578 times the salary decline when performance decreases, showing that corporate awards enhance the pay stickiness of managers but do not affect the pay stickiness of ordinary employees.

In Table 6, it can be seen that when financial performance increases, the difference in the coefficient of ROA*Award for executive vs. non-executive employees shows that the corporate awards improve the growth

^{**} Indicates significance at the 5% level (two-tailed).

^{*} Indicates significance at the 10% level (two-tailed).

Table 10
Tests of fixed effects model and first-order difference model.

Panel A	(1)	(2)	(3)	(4)
	F_{-} EXEPA Y	F_EXEPAY	F_EXEPAY	F_{-} EXEPAY
Award	0.05531***			
	(7.40)			
C_Award		0.00780***		
		(4.94)		
P_Award			0.00241*	
			(1.74)	
I_Award				0.00556^{***}
				(4.29)
Controls	YES	YES	YES	YES
Industry	YES	YES	YES	YES
Year	YES	YES	YES	YES
N	16,403	16,403	16,403	16,403
adj. R^2	0.248	0.246	0.245	0.246
F	745.39	740.97	737.88	740.11
				740.11
Panel B	(1)	(2)	(3)	
	$\Delta EXEPAY$	$\Delta EXEPAY$	$\Delta EXEPAY$	
ΔC_Award	0.00370**			
	(2.55)			
ΔP_Award	` ,	0.00386^{***}		
		(3.37)		
ΔI_Award		,	0.00209**	
			(1.98)	
Controls	YES	YES	YES	
Industry	YES	YES	YES	
Year	YES	YES	YES	
N	14,592	14,592	14,592	
adj. R^2	0.036	0.036	0.035	
F	7.05	7.11	7.02	

^{***} Indicates significance at the 1% level (two-tailed).

of executive compensation significantly more than for ordinary employees. When financial performance declines, the coefficient of ROA*Award shows that corporate awards act as a supplement for financial performance, ensuring that the reduction of executive compensation due to a decline in performance is significantly lower than the reduction of the compensation of ordinary employees.

5.3. Corporate awards and differentiated incentive effects

According to the principal-agent theory, management efforts are difficult to accurately measure, and it is impossible to formulate a completely effective compensation contract. The preceding investigation shows that corporate awards increase the salary gap between ordinary employees and managers. In this section, we further investigate the incentive effect or fairness effect resulting from the salary gap. If the incentive effect prevails, the financial performance of the company will improve; if the fairness effect prevails, it will adversely affect the financial performance of the company.

We investigate the subsequent impact of corporate awards on managers and ordinary employees from the perspective of future corporate financial performance (*ROA*) and total factor productivity (*TFP*). The results in columns (1) and (2) of Table 7 show that corporate awards enhance the incentive effect for managers and ordinary employees. After investigating the moderating effect of salary levels in columns (3) and (5), we see the incentive effect still exists. We next investigate the incentive effect on internal staff through the corporate

^{**} Indicates significance at the 5% level (two-tailed).

^{*} Indicates significance at the 10% level (two-tailed).

Table 11 Corporate awards and differentiated compensation.

Panel A	(1) EVED 4 V	(2) EXEPAY	(3) EXEPAY	(4) EXEPAY
	EXEPAY	EXEPAY	EXEPAY	EXEPAY
Award	0.06711***			
	(6.80)	ale ale ale		
C_Award		0.00854***		
		(4.42)	0.004-4**	
P_Award			0.00454**	
			(2.41)	0 000 40***
I_Award				0.00940***
		0 1010 - **	0.0000.0***	(5.32)
IMR	0.23587***	0.18197**	0.82206***	0.20847
a	(3.83)	(2.47)	(2.74)	(1.58)
Controls	YES	YES	YES	YES
Industry	YES	YES	YES	YES
Year	YES	YES	YES	YES
N	16,100	16,100	16,100	16,100
adj. R^2	0.408	0.407	0.406	0.407
F	139.50	138.93	138.60	139.00
Panel B	EMPAY	EMPAY	EMPAY	EMPAY
Award	-0.03305***			
	(-3.63)			
C_Award		-0.00392^{**}		
		(-2.20)		
P_Award			-0.00306*	
			(-1.77)	
I_Award				-0.00224
				(-1.38)
IMR	0.20015***	0.27606***	1.35530***	0.29459**
	(3.52)	(4.06)	(4.91)	(2.42)
Controls	YES	YES	YES	YES
Industry	YES	YES	YES	YES
Year	YES	YES	YES	YES
N	16,100	16,100	16,100	16,100
adj. R^2	0.323	0.323	0.323	0.323
F	97.23	97.06	97.20	96.83

^{***} Indicates significance at the 1% level (two-tailed).

market value (TQ). We find that the change in the internal compensation structure influenced by corporate awards enhances the market value of the company. This indicates that managers and ordinary employees are bearers of different levels of operating responsibility, and when the economic benefits are shared by individual managers, this does not raise concerns about fairness among ordinary employees, but instead promotes the improvement of the company's operating performance and market value.

5.4. Robustness tests

5.4.1. Endogeneity problem

(1) First, we use the propensity score matching method to solve the endogeneity problem. Referring to Malmendier and Tate (2009) and Jin and Zheng (2015), award-winning company is not randomly selected, their standing out in social comparison and evaluation may be the result of their better financial performance and larger size. Company that are larger and have better corporate governance may obtain higher social recognition, and this type of company may pay higher salaries and have a larger internal salary gap. Therefore, the research

^{**} Indicates significance at the 5% level (two-tailed).

^{*} Indicates significance at the 10% level (two-tailed).

Table 12 Corporate awards and compensation.

Donal A	(1) EVER 4 V	(2) EVER 4 V	(3) EVED 4V	(4) EVED 4 V
Panel A	EXEPA Y	EXEPAY	EXEPAY	EXEPAY
Award	0.05790***			
	(3.92)	***		
C_Award		0.00516***		
		(2.60)		
P_Award			0.00193	
			(1.15)	***
I_Award				0.00755***
				(4.40)
Controls	YES	YES	YES	YES
Industry	YES	YES	YES	YES
Year	YES	YES	YES	YES
N	9221	9221	9221	9221
adj. R^2	0.397	0.396	0.396	0.397
F	66.26	66.10	66.00	66.33
Panel B	EMPAY	EMPAY	EMPAY	EMPAY
Award	-0.02427^{**}			
	(-2.09)			
C_Award		-0.00321^{**}		
		(-2.06)		
P_Award			-0.00033	
			(-0.25)	
I_Award				-0.00123
				(-0.93)
Controls	YES	YES	YES	YES
Industry	YES	YES	YES	YES
Year	YES	YES	YES	YES
N	9221	9221	9221	9221
adj. R^2	0.370	0.370	0.369	0.369
F	59.15	59.15	59.08	59.09

^{***} Indicates significance at the 1% level (two-tailed).

question in this investigation may have an endogeneity problem. Referring to Malmendier and Tate (2009) and Jin and Zheng (2015), the propensity score matching method is used to control the differences in general characteristics between award-winning companies and non-award-winning companies, such as corporate size, solvency, profitability, development capacity, book-to-market ratio, and the level of internal governance, which may lead to corporate awards. Table 8 reports the differences for the dependent variables between the control group and treatment group based on the sample from a 1:1 nearest neighbor matching method, which shows that management compensation in the treatment group is higher than among non-winning companies (the control group), at the 1% level of significance, while the salary of ordinary employees is lower. The results of a multiple linear regression in Table 9 confirm the research hypotheses. Obviously, these findings exclude the endogeneity problem due to better corporate governance and larger size.

(2) Further, we use a fixed effects model and first-order difference model. To further confirm the causal relationship between corporate awards and executive compensation, we reexamine management compensation in the following year (*F_EXEPAY*) as the interpreted variable, using a fixed effects model. The results in Panel A of Table 10 indicate that corporate awards positively affect executive compensation. Additionally, we use the first-order difference model to rule out the influence of unobservable factors that do not change with time. The results in Panel B of Table 10 validate the main conclusions.

^{**} Indicates significance at the 5% level (two-tailed).

^{*} Indicates significance at the 10% level (two-tailed).

5.4.2. Corporate award information disclosure issues

- (1) Award information disclosure bias. As corporate awards are disclosed voluntarily, it is assumed that award-winning companies have the incentive to disclose information related to their awards based on the assumption of "rational economic man," but there may be reasons for companies not to disclose this information, given that information disclosure always has a cost. To avoid the impact of this information disclosure bias, we adopt the Heckman two-stage model. In the first stage, the dependent variable (*C_Award*, *P_Award*, or *I_Award*) is regressed by corporate characteristics such as size, solvency, development capacity, profitability, cash flow, and corporate governance using the probit model to obtain the inverse Mills ratio (IMR). Next, the IMR is added to the regression models (1) and (2) as a control in the second stage. The final results are shown in Table 11, in which the coefficient of the IMR is significantly positive, indicating that there is indeed a selective bias problem caused by unobservable factors. After excluding these factors, corporate awards still increase the salary level and salary gap of employees within the company, so the conclusions are still robust. The empirical results of the Heckman two-stage regression still support the hypothesis that corporate awards serve as indicators of non-financial performance to improve executive compensation and increase the internal salary gap.
- (2) Repeated award-related information disclosure. As some companies may disclose award information repeatedly, we delete repeated disclosures of the same corporate award in the same year. There may also be cross-year repeated disclosures; thus, we try to remove the same number of award data in different years to exclude the possibility of repeated disclosure of their awards. Next, the remaining sample of 9221 firm-year data is used to reexamine the research hypotheses. The results are shown in Table 12; they validate the main conclusions.

6. Conclusion

Modern enterprises face a complex environment and multiple stakeholders, and must adopt complicated management strategies to deal with interest distribution issues in the management process. It is necessary to obtain comprehensive information about managers' responsibilities to formulate effective compensation contracts. The empirical results of this investigation confirm that corporate awards are an important form of non-financial performance, and thus are beneficial to managers' compensation. Further investigation reveals the incentive effect of the executive compensation resulting from corporate awards. However, in the traditional view, ordinary employees have less influence on the corporation's financial performance than managers, so the salary of ordinary employees is often lower than that of managers. The degree of the relationship between the corporation's financial performance and the salaries of ordinary employees is also far lower than for managers (Fang, 2011), which is exacerbated by managerial power obtained through non-financial performance and by managers' motivation to defend their compensation. The empirical results confirm the hypothesis in this paper that corporate awards, as a form of nonfinancial performance, provide effective incentives and enhance the power of managers, and increase and defend executive compensation. The role played by internal managers in enterprises' performance creation and profit distribution has been overestimated.

Further investigation shows that in award-winning enterprises, the increase in executive compensation when financial performance rises is 1.3578 times greater than the decrease when it declines, indicating that corporate awards increase the stickiness of executive compensation but not ordinary employees' compensation. In addition, when the financial performance of the award-winning company increases, executive compensation rises more than that of ordinary employees, and executive compensation declines less than that of ordinary employees when financial performance worsens. A corporate award is a kind of management achievement, which benefits managers and enhances the incentive effect of salary structure change. Therefore, corporate awards promote the incentive effect of differentiated compensation. Under the current performance evaluation system, when corporate awards only financially benefit managers, this does not lead to fairness concerns among ordinary employees but promotes operating performance.

Although corporate awards have been in existence for some time, few studies focus on them, let alone explore their substance and economic significance. This study explores the differential impact of corporate awards on the compensation of managers and ordinary employees and its incentive effect from the perspective

of non-financial performance and the management achievement of awards. The external impacts of corporate awards, such as their impact on the capital market, should be investigated in the future.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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References

Adams, R.B., Almeida, H., Ferreira, D., et al., 2005. Powerful CEOs and their Impact on Corporate Performance. Rev. Financ. Stud. 18 (4), 1403–1432.

Ager, P., Voth, H.J., Incentives, K., 2016. Status Competition and Pilot Performance during World War II. Social Science Electronic Publishing.

Ashraf, N., Bandiera, O., Lee, S.S., 2014. Awards unbundled: Evidence from a natural field experiment ☆. J. Econ. Behav. Org. 100 (4), 44–63.

Angrist, J., Lavy, V., 2009. The Effects of High Stakes High School Achievement Awards: Evidence from a Randomized Trial. Am. Econ. Rev. 99 (4), 1384–1414.

Banker, R.D., Potter, G., Srinivasan, D., 2000. An Empirical Investigation of an Incentive Plan That Includes Nonfinancial Performance Measures. Acc. Rev. 75 (1), 65–92.

Besley, T., Ghatak, M., 2008. Status Incentives. Am. Econ. Rev. 98 (2), 206-211.

Behn, B.K., Riley, R.A., 1999. Using Nonfinancial Information to Predict Financial Performance: The Case of the U.S. Airline Industry [J]. J. Acc. Audit. Finan. 14 (1), 29–56.

Chan, H.F. et al., 2014. Academic honors and performance. Lab. Econ. 31 (C), 188-204.

Fang, F., Li, S., 2015. Research on the disparity in the remuneration of senior or management in Chinese enterprises. Soc. Sci. China 8, 47-67

Fang, J.X., 2009. Is top management compensation of Chinese public companies sticky? Econ. Res. J. 3, 110-124.

Fang, J.X., 2011. Managerial power and asymmetry of compensation change in China's public companies. Econ. Res. J. 4, 107-120.

Frey, B.S., 2007. Awards as compensation. Eur. Manage. Rev. 4 (1), 6–14.

Frey, B.S., 2006. Giving and Receiving awards. Perspect. Psychol. Sci. 1 (4), 377-388.

Frey, B.S., Fever, K., 2005. Towards an Economics of Awards. IEW-Working Papers 5.

Frey, B.S., Gallus, J., 2017. Towards an economics of awards. J. Econ. Survey. 31 (1), 190-200.

Frey, B.S., Neckermann, S., 2008. Awards: A view from psychological economics. J. Psychol. 216 (4), 198-208.

Gallus, J., Frey, B.S., 2016. Awards: a strategic management perspective. Strateg. Manag. J. 37 (8), 1699-1714.

Holmström, B., 1982. Moral Hazard in teams. Bell J. Econ. 13 (2), 324-340.

Huberman, B.A., Loch, C.H., Önçüler, A., 2004. Status as a valued resource. Soc. Psychol. Quart. 67 (1), 103-114.

Ittner, C.D., Larcker, D.F., Meyer, M.W., 2003. Subjectivity and the Weighting of Performance Measures: Evidence from a Balanced Scorecard. Acc. Rev. 78 (3), 725–758.

Ittner C.D, Larcker, D.F. Extending the Boundaries: Nonfinancial Performance Measures[J]. Handbooks of Management Accounting Research, 2009, 3(07):1235-1251.

Ibrahim, S., Lloyd, C., 2011. The association between non-financial performance measures in executive compensation contracts and earnings management. J. Acc. Public Policy 30 (3), 256–274.

Jensen, M.C., Murphy, K.J., 1990. Performance Pay and Top-Management Incentives[J]. J. Polit. Eco. 98 (2), 225-264.

Jin, X.J., Zheng, L.T., 2015. Who will be a star CEO: the source and influence of managerial reputation. Econ. Theor. Bus. Manage. 35 (9), 86–100.

Kosfeld, M., Neckermann, S., 2011. Getting More Work for Nothing? Symbolic Awards and Worker Performance. Am. Econ. J. Microeconomic. 3 (3), 86–99.

Lazear, E.P., Rosen, S., 1981. Rank-Order Tournaments as Optimum Labor Contracts. J. Polit. Econ. 89 (5), 841-864.

Li, W.J., Hu, Y.M., 2012. Who is encouraged by pay dispersion in state-owned enterprises? Econ. Res. J. 12, 125-136.

Malmendier, U., Tate, G., 2009. Superstar CEOs. Quart. J. Econ. 124 (4), 1593-1638.

Moldovanu, B., Sela, A., Shi, X., 2007. Contests for status. J. Polit. Econ. 115 (2), 338-363.

Pathan, S., 2009. Strong boards, CEO power and bank risk-taking. J. Bank. Financ. 33 (7), 1340-1350.

Shi, W., Zhang, Y., Hoskisson, R.E., 2017. Ripple effects of CEO awards: investigating the acquisition activities of superstar CEOs' competitors. Strateg. Manag. J. 38 (10), 2080–2102.

Washington, M., Zajac, E.J., 2005. Status evolution and competition: theory and evidence. Acad. Manag. J. 48 (2), 282-296.