

# IMPACT OF ON-THE-JOB CONSUMPTION ON CORPORATE RETURN ON ASSETS AND EQUITY

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**Abstract**— This study collected data on non-financial companies listed on the Main Boards of the Shanghai and Shenzhen stock exchanges from 2009 to 2018. By analyzing the relationship between internal controls, on-the-job consumption, and corporate performance, this study examines whether internal controls can mitigate the impact of on-the-job consumption on company performance. Through quantitative analysis, the study finds that in-service consumption has a negative relationship with company performance, and that internal controls play a large, moderating role between on-the-job consumption and corporate performance.

**Keywords**— On-the-job Consumption, Internal Control, Corporate Performance, Executive Rent-Seeking

## 1. INTRODUCTION

On-the-job consumption referred to any remuneration or special treatment of corporate executives in addition to their position's salaries. These included luxury offices, private cars, and the use of corporate money for entertainment and catering. The normal in-service consumption incurred by senior corporate executives while performing their duties is a consumption expenditure that the enterprise should bear, and is reasonable in itself. In reality, however, some executives seek personal privileges for food, clothing, housing, transportation, and enjoy luxury consumption in the name of in-service consumption, which damages the corporation's image. On-the-job consumption is a form of hidden corruption that easily leads to vast losses for an enterprise (Liang, 2007).

Developed countries have sound corporate governance systems, and hence the problem of on-the-job consumption is not a particularly prominent problem. Due to the imperfect internal supervision systems of Chinese enterprises, some executives of listed companies include on-the-job consumption as an implicit compensation contract, which becomes a hidden form of corruption (Xu *et al.*, 2013).

Li *et al.*, (2012) empirically tested the relationship between in-service consumption and performance, indicating that in-service consumption by the management of Chinese companies had a negative impact on their business performance. Ma and Ye (2016) found that in China, in-service consumption by management significantly reduced their company's performance.

On-the-job consumption is a difficult Chinese corporate governance problem. During daily business activities, executives inevitably incur expenses such as travel and business entertainment, so on-the-job consumption is inevitable. However, it is difficult to monitor and control on-the-job consumption effectively because it is difficult to determine which on-the-job expenditures are abnormal. This study's research theme is whether internal

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controls affect the in-service consumption behavior of self-interested executives, and investigates whether internal controls restrict on-the-job consumption by senior executives, helping companies restrain executives from implementing inefficient in-service consumption.

This study takes internal control as a constraint, establishes an econometric model of internal control for in-service consumption constraints. It then measures corporate performance along two dimensions, total return on assets (ROA) and total return on equity (ROE), to determine the impact of internal controls on company performance by utilizing in-service consumption.

The contribution of this paper lies in its study of the effectiveness of internal control systems within Chinese enterprises through empirical analysis, which provides a theoretical basis for employing internal controls to suppress the on-the-job consumption of senior executives and thus improve enterprise performance.

## 2. RESEARCH HYPOTHESIS

Berle and Means (1932) utilized an economic perspective to analyze the interest friction between principals and agents after the separation of ownership and management rights in an enterprise.

Principal-agent theory states that one or more principals entrust an agent to complete certain actions on their behalf via a contract, which establishes a principal-agent relationship between the two parties, where the purpose is to maximize their interests. Because the agent and the principal have different interests, the principal is at an informational disadvantage, and if the principal cannot fully supervise the agent, the agent will act for their own benefit. This is detrimental to the principal's interests, which creates the agency problem.

In-service consumption behavior is common in companies. The primary reason for it is the separation between ownership and control in companies, which results in "owner vanity," and because companies lack an effective supervision mechanism, which leads to agency problems. Power is concentrated in the hands of managers, who can use their power for on-the-job consumption and personal benefits (Xie *et al.*, 2019).

In-service consumption is a common agency cost that is certainly reasonable (Luo *et al.*, 2008). Li *et al.*, (2010) found that on-the-job consumption had a particular incentive effect in state-owned enterprises.

Thus, hypothesis 1 states:

H1-a: A company's in-service consumption level negatively correlates with its ROA.

H1-b: A company's in-service consumption level negatively correlates with its ROE.

Internal control was important in corporate governance. Effective internal control helps limit the power of management and reduces rent-seeking behavior by senior executives (Zhang and Xiu, 2017).

Improving corporate internal control quality can mitigate the effect of on-the-job consumption on the company's operating performance. In this study, we measure corporate operating performance along two dimensions, and study the moderating role of internal control in the relationship between in-service consumption and performance. Thus, hypothesis 2 states:

H2-a: In-service consumption in listed companies with higher internal control quality has less impact on their ROA.

H2-b: In-service consumption in listed companies with higher internal control quality has less impact on their ROE.

### 3. RESEARCH METHODOLOGY

#### 3.1. SAMPLE SELECTION AND SOURCE OF DATA

The research sample in this study includes all Chinese listed companies from 2009 to 2018, a total of 10 years. It does not include financial companies, GEM, or samples with missing data, resulting in a sample of 17,824 companies.

#### 3.2. VARIABLE DEFINITIONS

Table I describes the variable definitions in this study.

Table I. Variable Definitions

Variable type	Variable name	Variable code	Calculation method
Dependent variable	Corporate performance	ROA	Net profit / total assets
		ROE	Net profit / net assets
Independent variable	On-the-job consumption	Perks	Logarithm of the sum of eight management expenses
Moderator variable	Internal control quality	LnIC	Dibo's internal control index (logarithm of a value between 0 and 1000)
Control variable	Company Size	Size	Natural log of total assets
	Financial leverage	Lev	Asset-liability ratio = total liabilities / total assets
	Board size	Board	Board of Directors
	CEO duality	Power	Whether the chairman and the CEO are concurrent, 1 if they are, else 0
	Executive compensation	Wage	Total salary of top 3 executives / 10,000
	Industry	INDUS	Dummy variable
	Years	Year	Dummy variable

To study the impact of on-the-job consumption on enterprise performance, we utilized the following regression models to test the regulatory effect of internal controls, and thus the hypotheses above.

After Hausman test, the study used Fixed Effect Model. Models (1) and (2) studied the relationship between on-the-job consumption, ROA, and ROE. The models controlled for factors such as company size, financial leverage, board size, Chairman-CEO duality, and executive compensation, and verified that executive consumption on the job had a negative correlation with corporate performance. If  $\beta_1 > 0$ , there was a positive correlation between in-service consumption and corporate performance; if  $\beta_1 < 0$ , it indicated a negative correlation between in-service consumption and corporate performance.

$$ROA = \beta_0 + \beta_1 Perks + \beta_2 Size + \beta_3 Lev + \beta_4 Board + \beta_5 Power + \beta_6 Wage + \sum INDUS + \sum Year + \varepsilon \quad (1)$$

$$ROE = \beta_0 + \beta_1 Perks + \beta_2 Size + \beta_3 Lev + \beta_4 Board + \beta_5 Power + \beta_6 Wage + \sum INDUS + \sum Year + \varepsilon \quad (2)$$

Models (3) and (4) added internal controls to Models (1) and (2) as a mediating variable, examined the role of internal controls in the relationship between executive consumption and performance, and verified whether higher quality internal controls reduced the influence of in-service consumption on enterprise performance.

$$ROA = \beta_0 + \beta_1 Perks + \beta_2 LnIC + \beta_3 Perks * LnIC + \beta_4 Size + \beta_5 Lev + \beta_6 Board + \beta_7 Power + \beta_8 Wage + \sum INDUS + \sum Year + \varepsilon \quad (3)$$

$$ROE = \beta_0 + \beta_1 Perks + \beta_2 LnIC + \beta_3 Perks * LnIC + \beta_4 Size + \beta_5 Lev + \beta_6 Board + \beta_7 Power + \beta_8 Wage + \sum INDUS + \sum Year + \varepsilon \quad (4)$$

#### 4. EMPIRICAL RESULTS ANALYSIS

Table II. Descriptive Variable Statistics

variable	N	Mean	Standard deviation	Median	Minimum	Maximum
ROA	17,824	0.037	0.118	0.033	-0.707	0.707
ROE	17,824	0.060	0.152	0.064	-0.754	0.653
Perks	17,824	16.057	1.265	16.035	8.470	21.924
LnIC	17,824	6.150	1.431	6.503	0.000	6.886
Size	17,824	22.050	1.267	21.925	13.763	27.591
Lev	17,824	0.442	0.218	0.433	0.051	0.973
Board	17,824	8.634	1.725	9.000	3.000	18.000
Wage	17,824	193.042	191.794	146.475	25.010	4381.000
Power	17,824	0.254	0.436	0.000	0.000	1.000

Table II specifies that the total number of companies in the sample was 17,824.

The results of the descriptive statistics indicate that the data were consistent with the operation of listed companies in China.

Table III. Regression Analysis Results

	Model 1	Model 2	Model 3	Model 4
Intercept	-0.2808 ***	-0.1816 ***	-0.0165	0.4073 ***
	(-14.15)	(-6.85)	(-0.37)	(6.90)
Perks	-0.0018 **	-0.0029 **	-0.0198 ***	-0.0425 ***
	(-2.05)	(-2.42)	(-7.09)	(-11.45)
LnIC			-0.0332 ***	-0.0845 ***
			(-4.95)	(-9.44)
Perks_ lnIC			0.0029 ***	0.0064 ***
			(6.65)	(11.13)
Size	0.0173 ***	0.0134 ***	0.0146 ***	0.0105 ***
	(17.18)	(10.03)	(14.41)	(7.74)
Lev	-0.1976 ***	-0.1276 ***	-0.1764 ***	-0.1015 ***
	(-44.88)	(-21.7)	(-38.83)	(-16.76)

Board	0.0007	0.0001	0.0007	-0.0001
	(1.36)	(0.02)	(1.38)	(-0.05)
Wage	0.0001 ***	0.0001 ***	0.0001 ***	0.0001 ***
	(10.14)	(16.04)	(9.44)	(15.26)
Power	-0.0039 **	-0.0012	-0.0038 *	-0.0007
	(-2.00)	(-0.44)	(-1.98)	(-0.29)
Year and Ind	Yes	Yes	Yes	Yes
adj. R <sup>2</sup>	0.1265	0.0611	0.1448	0.0842
N	17824	17824	17824	17824

Note: \*, \*\*, and \*\*\* denote significance at levels of  $p < 10\%$ ,  $5\%$ , and  $1\%$ , respectively.

Table III presents the regression analysis results for Models (1) to (4).

The column for Model (1) reveals the regression results for in-service consumption and ROA, finding a negative correlation at the 5% level that was consistent with hypothesis H1-a. As agency theory states, as the level of executive in-service consumption increases, the company's ROA decreases. The column for Model (2) examines the relationship between in-service consumption and ROE. The regression coefficient was negatively correlated at the 5% level, supporting hypothesis H1-b, and the level of significance was consistent with Model (1), indicating that the regression results were robust.

Hypothesis 2 added the internal control index as a moderator variable to Hypothesis 1. The cross-term in regression (3) was positive and significantly correlated at the 1% level. The parameter for on-the-job consumption was -0.0198. After adding the internal control index for the regulated variable, the parameter of the cross-item was 0.0029. The sum of the parameters of on-the-job consumption and the cross-item was -0.0169, which was greater than the original parameter of -0.0198 for on-the-job consumption. This indicated that good internal controls played a role in pre-prevention, supervision-in-progress, and post-supervision, and thus reduced the impact of in-service consumption on corporate performance through strict approval procedures. The regression of Model (4) supported Hypothesis 4.

## 5. CONCLUSION

### 5.1. RESEARCH CONCLUSION

Targeting in-service consumption by executives at listed companies in China, this study examined the relationship between internal controls, in-service consumption, and corporate performance. It also analyzed the mediating role of internal controls on the relationship between on-the-job consumption and firm performance. According to the empirical results, the higher the level of on-the-job consumption by a company's executives, the lower the company's ROA and ROE. If internal control quality was increased, the influence of in-service consumption on ROA and ROE was decreased; that is, internal controls played a major role in regulating in-service consumption and corporate performance.

### 5.2. POLICIES AND RECOMMENDATIONS

China has implemented internal control systems for many years, and they are part of the corporate governance structure at Chinese companies. Through empirical research results, this study proposes the following suggestion:

From the government's perspective, it is necessary to establish and improve relevant laws and regulations, improve China's external supervision mechanisms for corporations, strengthen the supervision of companies listed in China, reduce the incentives for

executives to engage in rent-seeking behavior, and reduce the self-interested behavior hidden as in-service consumption.

### 5.3. LIMITATIONS AND PROSPECTS

The study followed the method from Chen et al. (2005), where they summed up eight expense items to measure the level of in-service consumption by senior management. However, due to limitations in obtaining and disclosing data related to in-service consumption, the difficulty and errors in collecting the relevant data increased. Therefore, the data compiled utilizing this method may not accurately represent the scale of a company's in-service consumption, which lowers the quality of the relevant data.

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