

# Chinese Alcohol Culture and Corporate Rent-seeking Behavior

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## Abstract

Culture plays an important role in affecting corporate behaviors when formal institutions fall short. Using China's A-share listed companies as a sample, we analyze the impact of Chinese alcohol culture on corporate rent-seeking behavior. We find that firms in regions in which alcohol plays a more prominent role show more rent-seeking expense. The results are still robust when we use the regional gender ratio and temperature as instruments. It is further found that a high level of alcohol culture in CEOs' home region significantly enhances rent-seeking expense. Moreover, the promoting effect of alcohol culture on corporate rent-seeking is significantly reduced in the state-owned firms or under the improvements in formal institutions. As for influence mechanism, we find that the alcohol culture can promote the tendency of executives and officials to engage in corruption. This paper provides micro evidence for the impact of culture on the real economy.

**JEL classification numbers:** G32, G38

**Keywords:** Culture; Rent-seeking; Alcohol; Corruption

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## **1 Introduction**

Numerous evidence shows that culture plays an important role in shaping our modern economy and the financial markets. Since Hofstede (1980) pioneered the concept of cultural dimension, many financial scholars began to incorporate culture as a “non-institutional factor” into the research model. At the micro level, culture can act on the corporate decision-making in such as capital structure, cash holding, and dividend policy (Chui et al., 2002; Chang and Noorbakhsh, 2009; Fidrmuc and Jacob, 2010). At the macro level, culture also has an important impact on regional government quality, institutional establishment, financial development, and economic performance (Porta, 1999; Guiso et al., 2003; Stulz and Williamson, 2003; Knack and Keefer, 1997). However, we find that most of the existing research use transnational culture comparisons, and rarely studies cultural differences in different regions of one country. At the same time, for China's research, most of them also explore the influence of culture from the general perspective such as religion and social trust, and rarely focus on Chinese characteristic culture. We believe that Chinese culture is unique and there are significant differences between different regions, which provides an excellent sample for the research of the impact of cultural differences between regions on economic activity. Therefore, we try to explore the mechanism of cultural action on corporate behavior from the perspective of the prominent alcohol culture in China.

In China, the alcohol culture has a long history. Archaeological excavations have discovered the alcohol in the bronze wares of the Shang Dynasty three or four thousand years ago. The alcohol culture has been deeply rooted in the soul and blood of Chinese people. At the same time, from the moment of being invented, alcohol naturally has a "political attribute." In ancient times, alcohol was often used in grand occasions such as sacrifices, celebrations, and wars. The production, sale, and use of alcohol were also highly monopolized by government. With the development of economy and society, the alcohol culture has gradually penetrated from top to bottom, and the profound connotation of the alcohol culture has also spread to all sectors of society.

Today, drinking takes on very important social functions and is closely related to authority. The bad ingredients in the alcohol culture were fully enlarged, and they began

to be intertwined with China's prominent "guanxi culture" and "officialdom culture". The influence of the alcohol culture gradually deteriorated. In some regions of China, drinking is an important way for enterprises to establish contact with government officials. Only when the alcohol is first served, can the company gain the trust and preferential treatment of the officials, thus gaining the inclination of political resources. So, drinking gradually becomes the sign of collusion and corruption between the government and the business. We find that the closer firms are to the center of power, the more serious this trend is, and in coastal areas where the economy is relatively developed, this trend is relatively weaker. We believe that the alcohol culture can influence the behavior of enterprises in the region by influencing the ideological construction of the people in the region. Specifically, we try to explore the impact of the alcohol culture on corporate rent-seeking behavior.

Due to the administrative regulation in China, China's companies face a heavy political burden (Shen et al., 2015). Firms need to actively pursue rent-seeking activities to establish political ties with the government to avoid the economic losses caused by the rent-setting of officials and to obtain more government resources. We believe that in areas with stronger alcohol culture, people are more advocating the power of authority, resource allocation is more focused on the impact of "guanxi", and the social atmosphere brought about by drinking will encourage enterprises and government officials to regard rent-seeking behavior as "normal" workflow. Based on the relatively weak environmental foundation of institution, this paper attempts to answer the following four questions: (1) Will firms in the regions with stronger alcohol culture conduct more rent-seeking activities? (2) Is the relationship between alcohol culture and corporate rent-seeking behavior causal? (3) Is there any difference in the influence of the alcohol culture on rent-seeking behavior in different firms and different institutional environments? (4) Has the effect of alcohol culture been changed under the anti-corruption campaign after the 18th National Congress of the Communist Party of China?

We test the relationship between alcohol culture and rent-seeking expense by using the sample of all the listed firms in China for the period from 2002 to 2014. We begin by

finding a strong positive relationship between alcohol culture and rent-seeking expense. This effect is both statistically significant and economically relevant. To address issues of potential endogeneity and spurious correlation, we adopt an instrumental variable (IV) approach. Specifically, we use the regional gender ratio and temperature as instruments. When we apply our main instruments to the proxies for alcohol culture, our conclusion remains the same. The findings support a causal interpretation for the relationship between alcohol culture and corporate rent-seeking.

After the general regression, we further analyze the role of company management played in transmitting culture. We find that a high level of alcohol culture in CEOs' home region significantly enhances rent-seeking expense. Furthermore, we explore the channel of influence of alcohol culture. We find that the alcohol culture can promote the tendency of executive and official to engage in corruption. Moreover, we test the firm heterogeneity of culture's influence. We find that the promoting effect of alcohol culture on corporate rent-seeking is weaker in the state-owned firms. Then, we test the interaction between culture and formal institution. We find that the effect of the alcohol culture on corporate rent-seeking expense is reduced in the regions with better legal environment. Subsequently, we also examined the effects of the anti-corruption campaign after the 18th National Congress of the Communist Party of China. Results have shown that the rigorous anti-corruption environment reduces the impact of alcohol culture on corporate rent-seeking expense, which fully demonstrates the importance of further improving the formal institution.

The research contribution of this paper is mainly reflected in: Firstly, combined with the reality that China's institutional environment is weak, this paper find the mechanism of social culture's influence on corporate rent-seeking behavior, which enriches the theoretical cognition of corporate rent-seeking behavior. Secondly, this paper demonstrates the relationship between culture and the behavior of market participants. Taking China's prominent alcohol culture as an entry point, this paper deeply analyzes the profound influence of culture on firms' behavior. This paper contributes to understanding the role of culture. Thirdly, through the analysis of the heterogeneity of the influence of alcohol culture, we find the interaction between the formal institution

represented by law and the informal system represented by culture, which has guiding significance for the further improvement of the institution. Finally, through the analysis of the anti-corruption campaign after the 18th National Congress of the Communist Party of China, this paper provides micro evidence for the effectiveness of the implementation of anti-corruption by the state, and provides a reference for further curbing “drinking corruption” and optimizing the social environment.

The remainder of the paper is organized as follows. Section 2 provides theoretical analysis and research hypothesis, while Section 3 discusses the research design. Section 4 presents the empirical result and analysis. Section 5 concludes the paper.

## **2 Theoretical Analysis and Hypothesis**

As a traditional Chinese culture, the alcohol culture exerts a subtle influence on the economic behavior of market participants in the region. In recent years, more and more research has begun to pay attention to the influence of culture as an informal factor on regional economic system construction and micro-business behavior. We illustrate the specific role of culture by taking the most extensive study of religious culture and social trust as an example. In terms of religious culture, Hilary and Hui (2009) found that in areas with stronger religious beliefs, companies would choose a lower level of risk taking level. Kumar et al. (2011) pointed out that differences in gambling tendencies caused by different religious beliefs can significantly affect people's trading behavior in the stock market. McGuire et al. (2011) found that religious influences can inhibit corporate financial reporting violations. In China, Chen et al. (2013) also empirically tested the role of religious tradition in improving the quality of listed companies' governance. In terms of social trust, Zack and Knack (2001) found that the regional trust environment can reduce the transaction costs caused by information asymmetry and thus promote investment growth. Guiso et al. (2008) found that social trust helps to increase public participation in the stock market. Domestically, Chen and Ma (2008) rely on the performance of the banking and demonstrate the important impact of social trust on the efficiency and structure of the financial system. Cao et al. (2015) found that a better trust environment reduces the investment-cash flow sensitivity of private enterprises from the perspective of agency problems.

Although the literature has fully demonstrated the positive effects of culture on various actors in economic activities, we cannot ignore that the influence of culture also has two-sidedness. Some negative factors in regional culture will also have a negative effect on economic construction. As a traditional Chinese culture, alcohol culture has been given new connotations in the process of social transformation. In China, banquets have always been an important form of establishing and maintaining social relations, and drinking as an indispensable part of Chinese-style banquets has become a social vehicle for participants to communicate information and enhance their relationships. However, with the development of economy and society, the bad elements in the alcohol culture have been widely used, its relationship with China's prominent "guanxi culture" (a Chinese social concept based on the exchange of favours, in which personal relationships are considered more important than laws and written agreements) and "officialdom culture" has become closer, and the influence of alcohol culture has begun to deteriorate. Derived into corporate behavior, Chinese companies often need to establish contact with the government and obtain resources through drinking. In many areas, there is even a trend of "no drinking and not doing things". Drinking has gradually become synonymous with corruption.

In the process of China's economic transformation, the loss of formal institutions has led to the role of the alcohol culture as an informal system. Due to the phenomenon of government regulation, Chinese enterprises face a heavy political burden and it may play a negative role in the development of enterprises. Enterprises need to actively establish sufficient government-enterprise relations with the government to avoid the economic losses caused by officials' rents and to obtain more government resources. Li and Huang (2010) pointed out that when the institutional environment causes distortions in resource allocation, enterprises can avoid adverse circumstances through bribery, so that economic activities can be carried out under the suboptimal configuration of scarce resources. Yu et al. (2010) also believe that in countries or regions where the institution is lagging behind and the government intervenes in the economy more severely, enterprises are more motivated to establish a political connection to achieve rent-seeking purposes.

Numerous studies have shown that corporate rent-seeking behavior has the dual functions of “protection fee” and “lubricant” (Leff, 1964; Huntington, 1968; Beck and Maher, 1986). The “protection fee” means that the rent-seeking behavior can prevent enterprises from being plundered by officials, such as forced apportionment. “Lubricant” means that rent-seeking behavior can help enterprises obtain non-market-oriented political resources, such as government subsidies. Specifically, companies can conduct rent-seeking behaviors in a variety of ways, such as banquets, gifts, and “political contributions” in the name of charitable donations (Dai, 2014). Among them, the banquet service represented by drinking is the most direct and most common way. Bian et al. (2004) pointed out that the importance of “social communication on dinner tables” is reflected in the Chinese people's realistic needs for “guanxi” and uses the model to illustrate the significance of banquets to relational capital. Cai et al. (2011) pointed out that for Chinese companies, “making friends” is often a prerequisite for “doing business”, and banquets are an important way to “making friends”. Huang and Li (2013) found that enterprises have profited from collusion with officials through eating and drinking, and the entertainment expense is used as a means of unfair competition.

In areas where alcohol culture is prevalent, the phenomenon of rent-seeking through drinking is more serious. Drinking has become the skill of survival and development of enterprises in these areas, and even the phenomenon of recruiting employees with the standard of capacity for alcohol has emerged. We believe that economic construction can indeed promote the establishment and progress of culture, but culture also has a negative effect on the economy. For the alcohol culture, the long-established culture in a region will increase the incentives for enterprises in the region to conduct rent-seeking behaviors, thereby increasing the rent-seeking expenses of enterprises, and the social environment brought about by the social interaction of drinking will encourage the normalization of rent-seeking behavior.

We believe that regional alcohol culture mainly affects the rent-seeking expenses of enterprises in the region through the following two channels: First, from the perspective of executives, the executives themselves will be influenced by the long-term culture of the region. In order to manage the company better, the executives will understand and

accept the local culture to a certain extent. Especially in terms of alcohol culture, if the alcohol culture in the region where the company is located is prevalent and the social environment is to promote the “guanxi” through drinking and socializing, the executives of the company will also be affected, and the motivation for participating in rent-seeking behavior will be stronger. That is, the stronger the regional alcohol culture, the management will realize that the acquisition of resources from the government is not based on the company's own endowment, but more on the political connection brought about by rent-seeking behavior such as drinking, which leads to more rent-seeking activities.

Second, from the perspective of government officials, the alcohol culture will also increase the government's the space of seeking rent. In China, because of the financial pressure brought by the tax-sharing system and the evaluation system of officials based on GDP, government officials will intervene in local enterprises in the name of economic development, which also provides a legitimate “excuses” for officials’ rent-seeking behavior (Yu et al., 2015). At the same time, government officials will also be affected by the social culture. The alcohol culture formed in the society will change the officials' ideology. They will slowly regard “not drinking and not doing things” as the habit of treating enterprises, and accept further bribes from the company. As Huang and Li (2013) stated, “surface corruption such as eating, drinking, and playing is likely to be intrinsically linked to deep corruption such as bribery.” The stronger the alcohol culture in the region, the higher the acceptance of corruption by government officials, which in turn encourage companies to conduct more rent-seeking behavior. Based on the above analysis, we propose the following assumption:

**Hypothesis 1:** All else being equal, firms in regions with stronger alcohol culture have more rent-seeking expenses.

From the perspective of ownership, state-owned enterprises have natural government ties. Compared with private enterprises, state-owned enterprises can obtain political capital through less effort, and even take government’s support and help as a matter of course. In areas with strong alcohol culture, state-owned enterprises still lack sufficient incentives to carry out rent-seeking activities. On the other hand, among state-owned



enterprises, corporate performance is often not the primary criterion for judging management. Due to the lack of incentives for evaluation mechanisms, the executives of state-owned enterprises may not aim at maximizing the interests of enterprises, so even alcohol culture can influence the management's thinking and behavior, they will not actively acquire government resources through rent-seeking behavior. However, for private enterprises, it is crucial to get the government's favor. Especially in areas with stronger alcohol culture, resource allocation pays more attention to the strength of "guanxi", and the executives of private enterprises will spare no effort to butter up the government. Based on the above discussion, we propose the following assumption:

**Hypothesis 2:** The alcohol culture has a relatively weaker effect on the rent-seeking expense in state-owned enterprises.

Culture is an important informal system that complements the influence of formal systems such as laws on companies. The more perfect the legal system is, the stronger the law is binding on the company, the enterprises will weaken the rent-seeking activities in order to avoid the punishment of the law. On the other hand, in areas with sound legal system construction, the social tend to follow the rules. The importance of "guanxi" has declined, and incentives for companies to rent-seeking have weakened. In fact, the construction of the legal system is an important indicator to measure the degree of marketization in the region. The legal system in a region is sounder, which means that the market is relatively more equitable. The government will give much greater weight to market factors than the association with the enterprises when allocating the resources. Therefore, we believe that the legal system can effectively alleviate the negative effects of the alcohol culture. Therefore, we propose the following assumption:

**Hypothesis 3:** In regions with better legal system construction, the alcohol culture has a relatively weaker effect on the rent-seeking expenses of firms.

On November 8, 2012, the 18th National Congress of the Communist Party of China was officially held in Beijing. The report of the congress clearly emphasized the importance of anti-corruption. After the congress, the state continued to introduce a number of rules and regulations around anti-corruption, further strengthened the determination of anti-corruption, and conducted a comprehensive investigation of

corruption in accordance with laws. According to relevant statistics, from November 2012 to December 2014, more than 60 ministerial officials were investigated for corruption, and thousands of officials at the department level were also sentenced. The political links established by enterprises through these officials are interrupted instantaneously. The company lost its special treatment. Since the 18th National Congress of the Communist Party of China, the uncertainty of political connections has increased, and companies will hesitate to pursue rent-seeking activities. Dang et al. (2015) believe that after the 18th National Congress of the Communist Party of China, the cost of political associations has increased dramatically, and enterprises no longer rely solely on political connections for development. Zhong et al. (2016) also pointed out that the anti-corruption campaign has made corporate corruption activities unable to continue, significantly reducing corporate corruption spending. We believe that the anti-corruption campaign after the 18th National Congress of the Communist Party of China has made officials more cautious to engage with enterprises, and enterprises have also reduced incentives for rent-seeking activities. Therefore, even if the alcohol culture in a region is still strong, companies will also consistently reduce rent-seeking expenses, and the impact of alcohol culture will be correspondingly weakened. Based on this, we propose the following assumption:

**Hypothesis 4:** Anti-corruption campaign increases the cost of seeking political connections and weakens the impact of alcohol culture on corporate rent-seeking.

### **3 Research Design**

#### **3.1 Data Sample and Sources**

This paper takes all listed companies in Shanghai and Shenzhen stock markets from 2002 to 2014 as the initial sample and filters the data according to the following criteria. (1) Excluding financial listed companies; (2) Excluding ST companies; (3) Excluding B shares; (4) Excluding data missing samples. For this testing period, our initial sample is 18660 firm-year observations. We collect data from multiple resources. First, we collect alcohol consumption and yield data come from the National Bureau of Statistics and Provincial Statistical Yearbooks. Next, to construct other measure of alcohol culture, we collect the list of top 200 famous brands of distilled liquor, as published in

the China National Association for Liquor and Spirits Circulation. Regarding the geographic origin of culture, we collect regional data regarding the gender ratio and temperature from China Statistical Yearbooks. Our firm-level data come from the China Stock Market and Accounting Research (CSMAR) database.

## **3.2 Variable Selection**

### **3.2.1 Interpreted Variable**

There is no direct indicator of corporate rent-seeking expenses. Most of the previous studies used questionnaire data to capture the costs of companies for seeking political resources. For example, Li and Huang (2010) use the answer of the European Bank for Reconstruction and Development's survey as a measure of the "bridal ratio". However, the data in the questionnaire has objectivity problems, because companies generally do not want to disclose the actual rent-seeking fees to the investigators to prevent data leakage. Therefore, this paper refers to the excess administrative expenses index constructed by Du et al. (2010) to measure the rent-seeking expenses. The data of this indicator can be obtained from the listed company's annual report, which guarantees the availability and authenticity of the data, so it is also widely used in the later rent-seeking research (Shen et al., 2015).

From the perspective of accounting definition, administrative expenses refer to the expenses incurred by the enterprise administrative department for organizing and managing production and operation activities, including entertainment and travel expenses. Cai et al. (2011) used corporate entertainment and travel expenses to portray Chinese companies' rent-seeking activities; Zhu and Wu (2014) used corporate entertainment expenses to measure their bribery intensity to the government. However, most listed companies do not specify the details of administrative expenses in the financial statements disclosed, so it is difficult to separate the entertainment and travel expenses. In view of this, we refer to the idea of calculating the discretionary accruals in the research of earnings management, and calculate the excess management fees after controlling the characteristics of the enterprise, so as to measure the rent-seeking expenses. The specific calculation steps are as follows:

In the first step, we use the following model regression to fit the sale-adjusted

administrative expenses (AE) of the enterprise, and obtain the coefficients of each independent variable:

$$AE_{it} = \alpha + \beta_1 LnSale_{it} + \beta_2 Lev_{it} + \beta_3 Growth_{it} + \beta_4 NMag_{it} + \beta_5 NSta_{it} + \beta_6 Auditor_{it} + \beta_7 Age_{it} + \beta_8 Margin_{it} + \beta_{10} HI_{it} + Industry + Year + \epsilon_{it} \quad (1)$$

where  $AE_{it}$  is the administrative expenses for firm  $i$  in year  $t$  divided by sales;  $LnSale_{it}$  is the natural logarithm of sales;  $Lev_{it}$  is the asset-liability ratio;  $Growth_{it}$  is the growth rate of sales;  $NMag_{it}$  is the number of board members;  $NSta_{it}$  is the number of employees;  $Auditor_{it}$  represents the auditor scale, if the auditors are from the big four accounting firms (PwC, Deloitte, KPMG, Ernst & Young), the value is 1, otherwise 0;  $Age_{it}$  indicates the listing year;  $Margin_{it}$  indicates the gross profit margin;  $HI_{it}$  indicates the top ten shareholders shareholding ratio;  $Industry$  and  $Year$  control the industry and year fixed effects, respectively.

In the second step, we use the coefficient estimated in the first step and substitute the actual financial data into equation (1) to calculate the estimated value of the enterprise administrative expenses  $\overline{AE}_{it}$ .

In the third step, we subtract the estimated value obtained in the second step from the actual administrative expenses, and finally get the excess administrative expenses (EAE) to measure the enterprise's rent-seeking fee (RSExp):

$$RSExp_{it} = EAE_{it} = AE_{it} - \overline{AE}_{it} \quad (2)$$

### 3.2.1 Explanatory Variables

How to quantify the intensity of culture is the key to studying the role of culture. In addition to using survey data, researchers have taken various perspectives to measure the intensity of cultural influence, such as Chen et al. (2013) measuring religious traditions with the number of temples, Pan et al. (2009) using the unpaid blood donation rate to characterize the social trust. For the alcohol culture, we use the method of Li et al. (2016) from the perspective of demand and supply of alcohol. First of all, from the demand side, we measure the alcohol culture in the region with alcohol consumption. Specifically, the statistics of the China Statistical Yearbook published by the National Bureau of Statistics include the average annual per capita alcohol consumption expenditure of urban households in various regions. We collect the data and then divide

the index by per capita income of urban residents, and finally get the first regional alcohol culture index - alcohol consumption (AlcoholC). Secondly, from the perspective of the supply side, we select two indicators, one is the sum of the yield of alcohol in each region, and divided by the population, and finally get the alcohol yield index (AlcoholY). We also verify that the yield index and consumption index are significantly positive. The other is to refer to the practice of Li et al. (2016), based on the number of famous alcohol brands in the region as an auxiliary indicator (BrandN). In summary, we chose alcohol consumption (AlcoholC), alcohol yield (AlcoholY) and famous alcohol brand (BrandN) as indicators of regional alcohol culture.

### **3.2.2 Control Variables**

Following Cai et al. (2011), Huang and Li (2013) and Shen et al. (2015), we also control for a vector of firm characteristics that have been shown to affect firm rent-seeking: the firm size (Size), which is the natural logarithm of corporate total assets ; the firm age (Age) , which is the natural logarithm of listing years (Age); profitability (ROA), which is the net profit ratio of total assets; debt ratio (Lev), which is the total debt compared to the total assets; chairman and manager duality (Dual); the largest shareholder ownership (First); the independent director ratio (IDS); the institutional ownership (Inst) . Our main region-level control variables are GDP per capita (PGDP), GDP growth (GGDP), and the logarithm of the residential consumption per capita (PConsume).

## **4 Empirical Results and Analysis**

### **4.1 Descriptive Statistics of Major Variables**

Table 1 reports descriptive statistics for the main variables. As shown in Table 1, the average value of the firm rent-seeking level is 0.0018 and the standard variance is 0.0695. As for the alcohol culture, on average, households spend approximately 0.7623% of their income on alcohol, and the standard deviation is 0.2074%, suggesting that there are significant differences across regions. Likewise, the supply-side variable “AlcoholY” has a mean value of 0.1526 and standard deviation of 0.1293, “Brand” has a mean value of 7.0341 and standard deviation of 3.1435. Hence, the supply side of alcohol also significantly varies at the regional level in China. The distribution of other variables are

within reasonable limits.

Table 1 Descriptive statistics of the main variables

VARIABLES	MEAN	SD	MIN	MAX	P25	P75
RSExp	0.0018	0.0695	-0.3856	0.8245	-0.0938	0.6547
AlcoholC	0.7623	0.2074	0.5054	0.9434	0.6094	0.9026
AlcoholY	0.1526	0.1293	0.0479	0.2478	0.0691	0.2212
Brand	7.0341	3.1435	1	15	4	13
Size	21.6077	1.1314	15.5773	26.4143	16.3142	23.3872
Age	8.5317	5.3019	1	24	3	15
ROA	0.0346	0.1448	-3.5292	10.4009	0.0165	0.0687
Lev	0.4820	0.2627	0.0071	6.3477	0.2671	0.6312
Dual	0.1816	0.3855	0	1	0	1
First	0.3719	0.1568	0.0220	0.8523	0.0451	0.6573
IDS	0.3557	0.0605	0	0.7143	0.1312	0.5671
Inst	0.2802	0.2454	0	0.9851	0.0931	0.4312
PGDP	10.4120	0.6993	8.0886	11.5488	9.1431	10.9843
GGDP	0.1123	0.0249	0.0490	0.2380	0.0873	0.1451
PConsume	9.4850	0.4261	8.7461	10.0542	9.1761	9.7901

## 4.2 The Relationship Between Chinese Alcohol Culture and Corporate Rent-seeking Expenses

We now investigate the relationship between alcohol culture and enterprise rent-seeking.

We rely on the following regression as a baseline model for our multivariate analyses:

$$RSExp_{ipt} = \alpha + \beta_1 Alcohol_{pt} + \beta_2' X_{ipt} + Industry + Year + \epsilon_{it} \quad (3)$$

Where  $RSExp_{ipt}$  refers to our main proxy of rent-seeking expense for firm  $i$  located in province  $p$  in year  $t$ ;  $Alcohol_{pt}$  is the proxy of alcohol culture; and  $X_{ipt}$  refers to a list of control variables. We also control for industry and year fixed effects and cluster the standard errors at the firm level in all regressions.

The results are tabulated in Table 2. Model (1) presents the baseline regression for all firms in our sample, and Model (4) further controls for development indices at the regional level. We can see that alcohol culture is positively associated with rent-seeking expenses. The coefficient of the alcohol culture is significantly negative at the level of 1%. In Models (1) and (4), for instance, a one-standard-deviation increase in AlcoholC is associated with 10.79% ( $0.047 \times 0.2074 / 0.0695$ ) and 11.35% standard deviation more

of rent-seeking expenses, respectively.

Table 2: The effect of alcohol culture on rent-seeking expense

VARIABLES	(1) RSExp	(2) RSExp	(3) RSExp	(4) RSExp	(5) RSExp	(6) RSExp
AlcoholC	0.047*** (2.88)			0.049*** (3.17)		
AlcoholY		0.058*** (3.14)			0.061*** (3.28)	
BrandN			0.008** (2.08)			0.009** (2.11)
Size	0.014*** (19.14)	0.014*** (19.10)	0.015*** (19.83)	0.014*** (18.79)	0.015*** (18.76)	0.014*** (18.91)
Age	-0.001*** (-3.38)	-0.001*** (-3.33)	-0.001*** (-3.25)	-0.001*** (-3.40)	-0.001*** (-3.32)	-0.001*** (-3.24)
ROA	-0.038*** (-12.37)	-0.038*** (-12.41)	-0.037*** (-12.31)	-0.038*** (-12.36)	-0.038*** (-12.40)	-0.038*** (-12.39)
Lev	-0.012*** (-5.20)	-0.013*** (-5.21)	-0.012*** (-5.19)	-0.012*** (-4.98)	-0.013*** (-5.00)	-0.012*** (-5.03)
Dual	0.001 (0.76)	0.001 (0.82)	0.001 (0.71)	0.001 (0.64)	0.001 (0.71)	0.001 (0.65)
First	-0.018*** (-3.60)	-0.018*** (-3.70)	-0.017*** (-3.48)	-0.019*** (-3.79)	-0.019*** (-3.89)	-0.018*** (-3.71)
IDS	0.004 (0.79)	0.005 (0.65)	0.004 (0.91)	0.005 (0.74)	0.006 (0.78)	0.005 (0.69)
Inst	0.005* (1.75)	0.005* (1.76)	0.005* (1.75)	0.005* (1.71)	0.005* (1.73)	0.005* (1.74)
PGDP				-0.036 (-1.15)	-0.040 (-1.30)	-0.038 (-1.31)
GGDP				0.016 (1.15)	0.020 (1.31)	0.019 (1.42)
PConsume				0.004*** (2.83)	0.003** (2.45)	0.003** (2.49)
Industry	Yes	Yes	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes	Yes	Yes
Constant	-0.062*** (-12.73)	-0.071*** (-13.35)	-0.067*** (-13.13)	-0.066*** (-10.72)	-0.057*** (-11.31)	-0.061*** (-11.84)
Observations	18,660	18,660	18,660	18,660	18,660	18,660
Number of code	2,290	2,290	2,290	2,290	2,290	2,290
R <sup>2</sup>	0.0533	0.0520	0.0531	0.0563	0.0549	0.0545

\*, \*\*, \*\*\* indicate significant at the 10%, 5%, and 1%, respectively (the same below).

Models (2) and (3) examine the relationship between alcohol culture and rent-seeking expense by using two alternative proxies from the supply side: the number of nearby famous alcohol brands (BrandN) and the per capita yield of alcohol (AcloholY). More explicitly, Models (2) and (5) tabulate the results when we replace Alcohol in Equation (3) with AcloholY. We can see that a higher degree of alcohol yield is generally associated with a higher degree of rent-seeking expense. In these two models, a one-standard-deviation increase in AcloholY is associated with 9.23% and 10.65% standard deviation more of earnings management, respectively.

When we replace Alcohol in Equation (3) with BrandN, we see that using this variable does not change our main results: being closer to more supply of alcohol brands is generally associated with a higher degree of rent-seeking expense. Specifically, in Model (3) and (6), a one-standard deviation increase in BrandN is associated with as high as 36.18% and 40.71% standard deviation more of rent-seeking expense. In comparison with the aforementioned impact of alcohol consumption, this enhanced magnitude highlights the particularly important role of expensive liquor in Chinese political and business life.

Our analysis thus far suggests that culture is associated with firm incentives for conducting rent-seeking. There is one issue associated with this observation: can we assign a causal interpretation to this relationship? We will address the issue in the next section.

### **4.3 An Instrumental Variable Approach**

In order to control the interference of potential endogeneity on the research conclusions, we adopt an instrumental variable (IV) approach based on geographic “shocks.” Recent studies show that social culture can be heavily influenced by both geographic conditions (Durante, 2009). More specifically related to alcohol, according to Li (2016), we use two instrumental variables as geographic “shocks” which can significantly influence the culture without directly affecting firm activities.

The first instrumental variable is the gender ratio of the existing population (Gender). As reported in the “Global status report on alcohol and health” of the World Health Organization (WHO), males drink more alcohol than females, so we believe that the



alcohol culture is stronger in the provinces with higher male ratio. At the same time, we expect the gender ratio to be unrelated to rent-seeking expense. Because of the one-child policy and the relatively tight control of cross-region mobility in China, this gender ratio is likely to be largely independent of firm activities.

The second instrumental variable is average temperature (Temperature). On the one hand, the aforementioned WHO report also mentioned that alcohol consumption is likely to be related to temperature. Researchers have also linked alcohol consumption to latitude in the U.S (Teague, 1985). On the other hand, temperature is pure geographic “shock” that which is exogenous.

So, the gender ratio and average temperature all meet the correlate and exogenous requirements of instrumental variable. The test results of the instrumental variables are shown in Table 3. We firstly use the gender ratio as main instrument, and we report the results of the first and second stages in column (1) and (2). As shown in column (1), the coefficient of the instrumental variable Gender is significantly positive. Alcohol consumption has a significant positive correlation with the gender ratio. From the second-stage regression in column (2), we can see that the coefficient of the predicted alcohol consumption is significantly positive, consistent with the previous main test results. Then, we use average temperature as instrument and we get regression results in column (3) and (4). In the first-stage regression in column (2), the coefficient of average temperature is significantly negative. People consume more alcohol in colder province. In the second-stage regression in column (4), the coefficient of the predicted alcohol consumption is significantly positive. So, this test excludes potential endogeneity problems and further supports the research conclusions of this paper.

Table 3: The effect of alcohol culture on rent-seeking expense: Instrumental variable approach

VARIABLES	(1) AlcoholC	(2) RSExp	(3) AlcoholC	(4) RSExp
Gender	0.619*** (6.88)			
Temperature			0.449*** (3.17)	
PAlcoholC		0.058*** (3.14)		0.061** (2.08)
Size	-0.002 (-0.41)	0.015*** (17.63)	-0.004 (-0.51)	0.014*** (14.33)
Age	-0.007 (-0.48)	-0.002*** (-3.19)	-0.009 (-0.61)	-0.003*** (-3.29)
ROA	-0.048*** (-4.37)	-0.036*** (-12.26)	-0.053*** (-5.17)	-0.036*** (-11.16)
Lev	0.052*** (5.20)	-0.013*** (-4.88)	0.054*** (5.51)	-0.014*** (-4.98)
Dual	0.006 (0.96)	0.001 (0.65)	0.005 (0.97)	0.002 (0.66)
First	-0.038 (-2.60)	-0.022*** (-3.59)	-0.039 (-2.70)	-0.031*** (-3.89)
IDS	-0.013 (-0.86)	0.004 (0.78)	-0.012 (-0.87)	0.006 (0.68)
Inst	0.015*** (6.45)	0.005* (1.79)	0.013*** (5.75)	0.005* (1.77)
PGDP	-0.421*** (-12.35)	-0.037 (-1.12)	-0.416*** (-12.41)	-0.038 (-1.02)
GGDP	-0.231*** (-11.41)	0.021 (1.15)	-0.241*** (-11.72)	0.020 (1.05)
PConsume	-0.341*** (-8.45)	0.005*** (2.93)	-0.319*** (-9.46)	0.004*** (2.99)
Industry	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes
Constant	3.265*** (15.13)	-0.071*** (-13.35)	3.217*** (13.63)	-0.076*** (-10.72)
Observations	18,660	18,660	18,660	18,660
Number of code	2,290	2,290	2,290	2,290
R <sup>2</sup>	0.0511	0.0520	0.153	0.0563

#### 4.4 Robustness Test

#### 4.4.1 Adjusting The Measurement of Rent-seeking

In order to further enhance the reliability of the research results, we remeasure firms' rent-seeking degree by using entertainment expense. Entertainment expense is a part of administrative expense. As previously mentioned, most listed companies do not specify the details of administrative expenses in the financial statements disclosed. So, we just statistics the samples which disclose the entertainment expense. We build another rent-seeking index ENExp by dividing entertainment expense by sale. Then we replace RSExp in Equation (3) with ENExp. The regression results are shown in Table 4. According to Table 4, the coefficient of alcohol culture index is still significantly positive, indicating that the hypothesis 1 is still supported after adjusting the measurement of corporate rent-seeking level.

Table 5: The effect of alcohol culture on rent-seeking expense: Entertainment expense

VARIABLES	(1) ENExp	(2) ENExp	(3) ENExp
AlcoholC	0.037*** (5.12)		
AlcoholY		0.024*** (3.11)	
BrandN			0.007*** (3.91)
Size	0.031*** (9.79)	0.035*** (8.97)	0.041*** (8.69)
Age	-0.002*** (-4.31)	-0.003*** (-4.55)	-0.003*** (-4.61)
ROA	-0.021*** (-12.54)	-0.028*** (-12.93)	-0.025*** (-12.17)
Lev	-0.026*** (-5.39)	-0.024*** (-6.63)	-0.019*** (-6.22)
Dual	0.011 (0.41)	0.014 (0.55)	0.011 (0.61)
First	-0.043*** (-3.99)	-0.032*** (-3.89)	-0.029*** (-3.88)
IDS	0.004 (1.08)	0.005 (0.98)	0.007 (0.99)
Inst	0.007 (0.75)	0.005 (1.06)	0.005 (1.09)
PGDP	-0.049 (-1.19)	-0.051 (-1.12)	-0.039 (-1.11)

GGDP	0.022 (1.01)	0.041 (1.29)	0.042 (1.03)
PConsume	0.005*** (3.43)	0.004** (2.43)	0.003** (2.44)
Industry	Yes	Yes	Yes
Year	Yes	Yes	Yes
Constant	-0.081*** (-11.86)	-0.067*** (-11.41)	-0.071*** (-11.19)
Observations	4,319	4,319	4,319
Number of code	439	439	439
R <sup>2</sup>	0.0891	0.0931	0.0941

#### 4.4.2 Subsample Regression

Due to the anti-corruption campaign after the 18th National Congress of the Communist Party of China in 2012, China introduced a number of rules and regulations to prevent rent-seeking, which may interfere with the conclusions of this study. Therefore, we exclude the sample of the year after 2012 and conduct further tests. The regression results are shown in Table 5. According to Table 5, the coefficient of alcohol culture index is still significantly positive, which still supports our conclusion.

Table 5: The effect of alcohol culture on rent-seeking expense: Subsample Regression

VARIABLES	(1) RSExp	(2) RSExp	(3) RSExp
AlcoholC	0.047*** (4.32)		
AlcoholY		0.052*** (4.11)	
BrandN			0.008*** (3.81)
Size	0.017*** (18.89)	0.016*** (18.77)	0.015*** (18.69)
Age	-0.001*** (-3.35)	-0.001*** (-3.45)	-0.001*** (-3.65)
ROA	-0.039*** (-12.47)	-0.038*** (-12.58)	-0.039*** (-12.77)
Lev	-0.015*** (-4.99)	-0.019*** (-6.13)	-0.015*** (-6.02)
Dual	0.001 (0.61)	0.001 (0.61)	0.001 (0.69)

First	-0.021*** (-3.89)	-0.022*** (-3.79)	-0.019*** (-3.79)
IDS	0.004 (0.88)	0.006 (0.91)	0.006 (0.94)
Inst	0.006* (1.74)	0.005* (1.76)	0.005* (1.74)
PGDP	-0.039 (-1.16)	-0.041 (-1.32)	-0.039 (-1.35)
GGDP	0.018 (1.16)	0.021 (1.31)	0.018 (1.43)
PConsume	0.003** (2.43)	0.002** (2.41)	0.002** (2.41)
Industry	Yes	Yes	Yes
Year	Yes	Yes	Yes
Constant	-0.071*** (-10.88)	-0.077*** (-11.91)	-0.076*** (-11.99)
Observations	15,391	15,391	15,391
Number of code	2,010	2,010	2,010
R <sup>2</sup>	0.0443	0.0443	0.0443

#### 4.5 The Influence of CEO on Transmitting Culture

When considering the impact of regional alcohol culture on the company's rent-seeking behavior, we use the alcohol culture of the province where the company is registered. However, the company's rent-seeking behavior is ultimately determined by the management. We further examine the effect of the alcohol culture of the province the where company's CEO is born on the rent-seeking behavior of the company.

In order to measure the extent to which the management is influenced by the wine culture, we proceed from the perspective of the CEO's birthplace. We define the CEO from a stronger alcohol culture region (the corresponding alcohol culture index is higher than the median) as the alcohol preference CEO (AICEO) and include it as a dummy variable in the regression. The regression results are shown in Table 6.

Table 6. The influence of CEO on transmitting culture

VARIABLES	(1) RSExp	(2) RSExp	(3) RSExp
AICEO	0.014*** (2.78)	0.021*** (3.15)	0.023* (1.75)
Size	0.021*** (17.64)	0.020*** (17.19)	0.019*** (17.86)
Age	-0.001*** (-3.68)	-0.001*** (-3.63)	-0.001*** (-3.64)
ROA	-0.034*** (-9.87)	-0.034*** (-9.51)	-0.033*** (-9.67)
Lev	-0.022*** (-4.10)	-0.023*** (-4.20)	-0.022*** (-4.18)
Dual	0.001 (0.66)	0.001 (0.68)	0.001 (0.61)
First	-0.015** (-2.10)	-0.015** (-2.17)	-0.017** (-2.18)
IDS	-0.016** (-2.11)	-0.016* (-1.69)	-0.019** (-2.07)
Inst	0.004 (1.45)	0.004 (1.46)	0.003 (1.41)
PGDP	0.001 (0.88)	0.002 (0.97)	0.003 (0.98)
GDPG	-0.045 (-1.39)	-0.047 (-1.55)	-0.046 (-1.49)
PConsume	0.003** (2.46)	0.002*** (2.99)	0.003** (2.35)
Industry	Yes	Yes	Yes
Year	Yes	Yes	Yes
Constant	-0.088*** (-9.63)	-0.099*** (-10.15)	-0.087*** (-10.13)
Observations	9,134	9,134	9,134
Number of code	1,710	1,710	1,710
R <sup>2</sup>	0.0731	0.0728	0.0745

The explanatory variables AICEO of the model (1) in Table 6 equals to 1 when the CEO of the company comes from the provinces where the alcohol culture index AlcoholC is higher than the median, otherwise 0. We can see that the coefficient of AICEO is significantly positive, indicating that CEO from stronger alcohol culture provinces do

lead the company's more rent-seeking activities, resulting in greater rent-seeking expenses. Model (2) and Model (3) use the AlcoholY and BrandN index respectively. The result remains the same. This part provides assistance for our conclusions and also reflects the influence of CEO on transmitting culture.

#### **4.6 Channel**

From the perspective of enterprise executives, the executives will be influenced by the long-term culture of the region. Especially in terms of alcohol culture, if the alcohol culture in the region where the company is located is prevalent and the social environment is to promote the “guanxi” through drinking and socializing, the executives of the company will also be affected, and the motivation for corruption will be stronger. That is, executives in regions with stronger alcohol culture have more possibility to corrupt. We collect the corruption data of executives of listed companies in China from 2002 to 2014. First, through the main media we can search listed company executives corruption case news reports. Then through search engines such as Baidu, we can find relevant vocabulary about executives corruption, executives irregularities, embezzlement of state-owned assets, bribery, illegal fund-raising of listed companies, and further supplement media reporting data. Next, We estimate the following model:

$$EXCorrupt_{ipt} = \alpha + \beta_1 Alcohol_{pt} + \beta_2' X_{ipt} + Industry + Year + \epsilon_{it} \quad (4)$$

where  $EXCorrupt_{ipt}$  is a dummy variable that equals to one if the firm  $i$  is reported to executives corruption cases in year  $t$ . Other control variables are defined as before.

The results of model (4) are shown in Table 7. From the results, we can see that the regression coefficients of AlcoholC, AlcoholY and BrandN are significantly positive. This result shows that in regions with stronger alcohol culture, executives have more possibility to corrupt. If the executives engage more in corruption themselves, the company will also engage more in rent-seeking activities.

Table 7. The influence of alcohol culture on executives

VARIABLES	(1) EXCorrupt	(2) EXCorrupt	(3) EXCorrupt
AlcoholC	0.237*** (4.33)		
AlcoholY		0.192** (2.11)	
BrandN			0.118*** (3.88)
Size	0.477*** (11.31)	0.456*** (12.17)	0.476*** (13.29)
Age	-0.131*** (-3.47)	-0.142*** (-3.79)	-0.121*** (-3.71)
ROA	0.339*** (5.47)	0.338*** (5.68)	0.329*** (5.74)
Lev	-0.145*** (-5.91)	-0.119*** (-6.23)	-0.115*** (-6.12)
Dual	0.150*** (3.61)	0.141*** (3.61)	0.131*** (3.69)
First	-0.321 (-0.89)	-0.322 (-0.79)	-0.319 (-0.78)
IDS	0.077 (0.89)	0.076 (0.90)	0.074 (0.91)
Inst	0.316** (2.24)	0.305** (2.26)	0.315** (2.24)
PGDP	-0.139 (-0.76)	-0.141 (-0.76)	-0.132 (-0.79)
GGDP	0.135 (1.06)	0.178 (1.01)	0.155 (1.03)
PConsume	0.198 (0.43)	0.143 (0.41)	0.121 (0.41)
Industry	Yes	Yes	Yes
Year	Yes	Yes	Yes
Constant	-0.071*** (-10.88)	-0.077*** (-11.91)	-0.076*** (-11.99)
Observations	18,660	18,660	18,660
Number of code	2,290	2,290	2,290
R <sup>2</sup>	0.0763	0.0741	0.0749

From the perspective of government officials, the alcohol culture will also increase the



officials' incentive of seeking rent. In China, the officials are evaluated based on GDP, they will intervene in local enterprises in the name of economic development, which provides incentive for officials' rent-seeking behavior. At the same time, government officials will also be affected by the social culture. The alcohol culture formed in the society will change the officials' ideology. They will slowly regard rent-seeking as usual, and accept further bribes from the company. The stronger the alcohol culture in the region, the higher the acceptance of corruption by government officials, which in turn encourage companies to conduct more rent-seeking behavior. Based on the above analysis, we hypothesize that officials in regions with stronger alcohol culture have more possibility to corrupt. We estimate the following model:

$$OF\text{Corrupt}_{pt} = \alpha + \beta_1 \text{Alcohol}_{pt} + \beta_2' X_{pt} + \text{Year} + \epsilon_{it} \quad (5)$$

where  $OF\text{Corrupt}_{pt}$  is the number of corruption cases per 10,000 public officials in the region and the other region-level control variables are defined as before.

The results of model (5) are shown in Table 8. From the results, we can see that the regression coefficients of AlcoholC, AlcoholY and BrandN are significantly positive. This result shows that in regions with stronger alcohol culture, officials have more possibility to corrupt which will in turn encourage companies to conduct more rent-seeking behavior.

Table 8. The influence of alcohol culture on officials

VARIABLES	(1) OFCorrupt	(2) OFCorrupt	(3) OFCorrupt
AlcoholC	1.781*** (3.72)		
AlcoholY		2.051*** (3.41)	
BrandN			1.009*** (3.89)
PGDP	0.871*** (4.88)	0.851*** (5.08)	0.865*** (5.11)
GDPG	1.245** (2.39)	1.315*** (2.46)	1.251*** (2.49)
PConsume	1.103*** (3.46)	1.216*** (3.51)	1.093*** (3.66)

Industry	Yes	Yes	Yes
Year	Yes	Yes	Yes
Constant	-3.018*** (-11.13)	-3.192*** (-10.95)	-3.281*** (-11.43)
Observations	408	408	408
Number of code	34	34	34
R <sup>2</sup>	0.1732	0.1741	0.1451

#### 4.7 Heterogeneity of Firms

From the perspective of firms' heterogeneity, state-owned enterprises have natural government ties. In areas with strong alcohol culture, state-owned enterprises still lack sufficient incentives to carry out rent-seeking activities. However, for private enterprises, it is crucial to get the government's favor. Especially in areas with stronger alcohol culture, resource allocation pays more attention to the relationship with government. Our underlying hypothesis is that the alcohol culture has a relatively weaker effect on the rent-seeking expenses in state-owned enterprises. We estimate the following model:

$$RSExp_{ipt} = \alpha + \beta_1 Alcohol_{pt} + \beta_2 Alcohol_{pt} \times State_{ipt} + \beta_3 State_{ipt} + \beta_4' X_{ipt} + Industry + Year + \epsilon_{it} \quad (5)$$

where  $State_{ipt}$  is a dummy variable that takes the value of one when the firm is state-owned and the other variables are defined as before. The coefficient of interest is  $\beta_2$ : if the hypothesis 2 is true, the coefficient should be negative.

The results are tabulated in Table 9. Consistent with our presumption, we can see that the coefficient of cross term is significantly negative regardless of the selection of alcohol culture index, indicating that the state ownership weaken the influence of alcohol culture. These results have important implications, they suggest that state-owned enterprises can get more resource from the government.

Table 9. The effect of alcohol culture on rent-seeking expense: Heterogeneity of firms

VARIABLES	(1) RSExp	(2) RSExp	(3) RSExp
AlcoholC	0.046*** (4.39)		
AlcoholY		0.051*** (4.21)	
BrandN			0.009*** (3.56)
AlcoholC×State	-0.016*** (-5.59)		
AlcoholY×State		-0.031*** (-4.22)	
BrandN×State			-0.004*** (-3.22)
State	-0.012** (-2.12)	-0.014** (-2.19)	-0.016** (-2.09)
Other Controls	Yes	Yes	Yes
Industry	Yes	Yes	Yes
Year	Yes	Yes	Yes
Constant	-0.067*** (-11.39)	-0.073*** (-11.88)	-0.074*** (-11.43)
Observations	18,660	18,660	18,660
Number of code	2,290	2,290	2,290
R <sup>2</sup>	0.0532	0.0543	0.0541

#### 4.7 The Interaction Between Culture and Formal Institution

Furthermore, we study the interaction between culture and formal institution. From the perspective of regional institution environment, culture and law have complementary roles. The more sound the legal system, the less important the relationship between enterprises and the government, and the weakening incentives for enterprises to pursue rent-seeking activities. We believe that the legal system can effectively alleviate the negative effects of the alcohol culture. Even in areas with strong alcohol culture, the legal system can still strongly restrict the rent-seeking behavior of enterprises. In order to verify the difference in the influence of alcohol culture in different legal system environments, we set the model:

$$RSExp_{ipt} = \alpha + \beta_1 Alcohol_{pt} + \beta_2 Alcohol_{pt} \times Law_{pt} + \beta_3 Law_{pt} + \beta_4' X_{ipt} + Industry + Year + \epsilon_{it} \quad (6)$$

where  $Law_{pt}$  is the regional legal system index according to the China's provincial marketization index report by Fan et al.(2016). The coefficient of interest is  $\beta_2$ : if the hypothesis 3 is true, the coefficient should be negative.

The results are tabulated in Table 10. It can be seen from the results that the regression coefficients of the cross terms are significantly negative, which shows that in the provinces with more sound legal system, the alcohol culture has a relatively weaker effect on the rent-seeking expenses. In summary, the establishment of a formal system such as laws will also weaken the alcohol culture' impact.

Table 10. The interaction between culture and formal institution

VARIABLES	(1) RSExp	(2) RSExp	(3) RSExp
AlcoholC	0.049*** (4.21)		
AlcoholY		0.047*** (4.38)	
BrandN			0.011*** (3.96)
AlcoholC×Law	-0.021*** (-6.19)		
AlcoholY×Law		-0.022*** (-4.32)	
BrandN×Law			-0.005*** (-4.22)
Law	-0.020* (-1.69)	-0.024* (-1.68)	-0.026* (-1.71)
Other Controls	Yes	Yes	Yes
Industry	Yes	Yes	Yes
Year	Yes	Yes	Yes
Constant	-0.076*** (-12.19)	-0.072*** (-11.71)	-0.075*** (-12.33)
Observations	18,660	18,660	18,660
Number of code	2,290	2,290	2,290
R <sup>2</sup>	0.0541	0.0533	0.0549

Finally, we consider the impact of the anti-corruption campaign after the 18th National Congress of the Communist Party of China. Since the 18th National Congress, the country's anti-corruption efforts have increased significantly, and the social corruption atmosphere has been effectively curbed. We believe that the anti-corruption campaign after the 18th National Congress has increased the risk of rent-seeking and reduced the incentives for rent-seeking. Even though the alcohol culture in some areas is still strong, enterprises will also be subject to the standardization of official behavior and reduce rent-seeking expenses, and the impact of alcohol culture will be weakened accordingly. To test whether anti-corruption activities have an impact on the role of alcohol culture, we set the model:

$$RSExp_{ipt} = \alpha + \beta_1 Alcohol_{pt} + \beta_2 Alcohol_{pt} \times Post_{it} + \beta_3 Post_{it} + \beta_4' X_{ipt} + Industry + Year + \epsilon_{it} \quad (7)$$

where  $Post_{it}$  is a dummy variable that takes the value of one when the time is after 2012. According to hypothesis 4, we predict the cross-term coefficient  $\beta_2$  in model is negative.

The results of model (7) are shown in Table 11. From the results, we can see that the regression coefficients of the cross terms of AlcoholC, AlcoholY and BrandN and the time indication variables are significantly negative at the confidence levels of 1%, 5%, and 10%, respectively. This result shows that after the 18th National Congress, the promotion of alcohol culture to corporate rent-seeking expenses was significantly reduced. The strengthening of anti-corruption has effectively increased the cost of renting officials. Under the strong constraints of laws, officials are more cautious in engaging with enterprises. The reduction of corruption weakens the importance of relationship and optimizes market environment. Just resource allocation has promoted fair competition for enterprises. For the company itself, the persistence of anti-corruption can inhibit the speculative behavior of management, which can further focus on normal production and operation, rather than conducting rent-seeking activities. As an informal system, alcohol culture can only affect the rent-seeking activities of enterprises more in areas with relatively weak institutional environment. Through the

study of anti-corruption activities, we further verified the importance of the legal system. If the legal system is sound and enforcement is strict, then the impact of culture will be effectively curbed.

Table 11. Impact of anti-corruption

VARIABLES	(1) RSExp	(2) RSExp	(3) RSExp
AlcoholC	0.061*** (2.66)		
AlcoholC×Post	-0.041*** (3.98)		
AlcoholY		0.051*** (3.21)	
AlcoholY×Post		-0.024** (2.33)	
BrandN			0.023* (1.78)
BrandN×Post			-0.011* (1.98)
Post	-0.011** (2.28)	-0.014** (2.18)	-0.013* (1.88)
Other Controls	Yes	Yes	Yes
Industry	Yes	Yes	Yes
Year	Yes	Yes	Yes
Constant	-0.053*** (-11.88)	-0.068*** (-11.87)	-0.071*** (-12.14)
Observations	18,660	18,660	18,660
Number of code	2,290	2,290	2,290
R <sup>2</sup>	0.0587	0.0575	0.0551

## 5 Research Conclusions

China's economy is undergoing transformation, and there is a lack of formal institutions. Enterprises can establish government relations through rent-seeking behavior, thus gaining more resources. When the formal institutions are not perfect, culture as an important informal system has a profound impact on the behavior of the companies. This paper takes the listed companies in Chinese A-share market from 2002 to 2014 as a sample to study the impact of alcohol culture on the rent-seeking expense and its

mechanism. We find that firms in regions with a more prominent alcohol culture are in general associated with more rent-seeking expense. Our results are robust when we use the instrumental variable method to control the potential endogeneity and the measurement method of the substitution variables. Furthermore, we analyze the role of executives played in transmitting culture. We find that a high level of alcohol culture in CEOs' home region significantly enhances rent-seeking expense. As for the channel of influence of alcohol culture, we find that the alcohol culture can promote the tendency of executives and officials to engage in corruption. Moreover, we find that the promoting effect of alcohol culture on corporate rent-seeking is weaker in the state-owned firms. Then, we test the interaction between culture and formal institution. We find that the effect of the alcohol culture on corporate rent-seeking expense is reduced in the regions with better legal environment. Subsequently, we also examined the effects of the anti-corruption campaign after the 18th National Congress of the Communist Party of China. We find that the rigorous anti-corruption environment reduces the impact of alcohol culture on corporate rent-seeking expense.

The conclusions of this paper show that the regional culture can affect firm activities profoundly. Culture plays an important role in the real economy when formal institutions fall short. While focusing on the positive role of culture, we cannot ignore the negative impact of culture. For our research, the prominent alcohol culture in China promotes firms to engage more in rent-seeking activities, which affects fair competition and damages the business environment.

Finally, we need to point out that for the government, the research in this paper provides a reference for further curbing corruption. The government needs to rectify the style of work and completely abandon the attitude of "no drinking and no doing things", thus establishing a good market environment. At the same time, we need to realize that alcohol culture does not necessarily mean corruption. As a characteristic culture of China, alcohol culture must also have a part that is beneficial to economic and social development. We need to treat the value of culture dialectically.

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