

Religious Culture and the Quality of Corporate Information Disclosure¹

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Abstract. The quality of information disclosure is a key element in protecting the interests of investors and maintaining the healthy development of the capital market. This paper examines the relationship between religious atmosphere and information disclosure quality by taking samples of Shenzhen A-share listed companies from 2010 to 2018. The research results show that the rational arrangement of corporate governance structure can promote the disclosure of information, while the religious atmosphere has complementary or alternative effects on certain corporate governance mechanisms. The conclusion of this study means that under the circumstances that there are many problems in corporate governance in China's capital market, religious culture can effectively make up for the shortcomings of corporate governance and effectively solve the agency problem.

1. Introduction

Information disclosure quality information and incentives have always been two major problems that plague modern capital markets. For emerging market countries that are in urgent need of fast and good development of capital markets, how to minimize the transaction costs caused by them is a key issue. Good information disclosure can not only weaken the information asymmetry between the supply and demand sides of the funds and improve the allocation efficiency of resources in the whole market, but also provide external investors with supervision and evaluation of the company's management and reduce moral hazard and opportunistic behavior. Therefore, it plays an important role in promoting the effective operation of the capital market (Healy & Palepu, 2001).

How can we guarantee and improve the quality of information disclosure? The existing literature has conducted in-depth research from the perspectives of ownership structure (Shleifer & Vishny, 1986), board characteristics (Beasley, 1996), management or institutional investor holdings (Warfield et al., 1995), and investor legal protection (Porta et al., 1999). However, existing research has neglected the fact that in addition to these internal governance mechanisms, there is also an important external governance mechanism - religion. Under the influence of religious morality and social behavior normative effects, it can help reduce manager's defeat behavior, improve information disclosure quality, and reduce agency costs.

Therefore, the purpose of this paper is to answer the following questions: Does the religious culture of the company's region have an impact on the quality of the company's information disclosure?

Based on the results of the information disclosure of the Shenzhen Stock Exchange, this paper discusses the relationship between the religious culture atmosphere and the quality of corporate information disclosure. The results show that a strong religious and cultural atmosphere helps to improve the quality of information disclosure. This conclusion means that in the context of China's current system, understanding the differences in the quality of information disclosure and the protection of investor interests in various regions, it is necessary to examine this issue from the perspective of differences in religious traditions across regions.

There are two main contributions to this article. First, this paper studies the relationship between religious culture atmosphere and information disclosure quality, and provides new empirical data for a deep understanding of the intrinsic link between the two and the influencing factors of information disclosure quality. Secondly, based on the results of the information disclosure of the

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Shenzhen Stock Exchange, this paper draws meaningful conclusions. It has a greater policy implications for the securities market regulators to improve relevant regulations and improve the quality of listed companies.

The remainder of the paper is arranged as follows: the second part is the theoretical basis and research hypothesis; the third part is the research design; the fourth part is the empirical result analysis; the fifth part is the research conclusion.

2. Theoretical Analysis and Hypothesis

The fundamental purpose of information disclosure is to reduce information asymmetry inside and outside the company and help external investors make correct evaluations and decisions. However, in the decision-making environment where the two powers are separated, the insiders of the company have the motive and ability to manipulate and distort the information disclosure to achieve the position. By rationally arranging the internal governance mechanism of the company, it is possible to achieve synergy between the interests of insiders and outsiders, thereby constraining this moral hazard behavior of insiders. However, the behavior of company executives is not only constrained by the internal governance mechanism of the company, but also deeply influenced by religious culture. Beyond corporate governance mechanisms, ethical constraints and social norms from religious cultures may also play a positive role in constraining and motivating management.

Religious moral constraints and values shaping theory believe that religion will shape the morals and values of its followers. Religious economics believes that religion has two basic attributes (Stark & Finke, 2002) , one is cultural attributes (supernatural beliefs and afterlife beliefs), and the other is institutional attributes. Cultural attributes make religion different from other secular organizations, and institutional attributes make religion different from non-institutional supernatural beliefs such as witchcraft. These two attributes of religion have an important impact on economic and financial development. Among them, religion shapes the morals and values of believers through its cultural attributes, directly affecting the economic and financial decision-making behavior of believers. Religion will form the values and beliefs of believers, which will further influence economic behavior and decision-making (Iannaccone, 1998).Religious beliefs can not only restrict managers' non-ethical behaviors (Longenecker et al., 2004; Conroy and Emerson, 2004), but also constrain managers' opportunistic behaviors (Li, 2007), constrain managers and auditors' risk-taking behaviors (Iancarlin and Gervais, 2009; Hilary and Hui, 2009; Omer et al., 2010), and restrain and constrain corporate executives from pursuing excessive compensation and earnings management (Grullon et al., 2010).Religious beliefs can constrain aggressive financial reporting and financial irregularities (McGuire et al., 2012; Dyreng et al., 2012) and can also constrain the speculative risk behavior of mutual fund managers (Shu et al., 2010).Religion can also influence the portfolio of institutional investors (Kumar et al., 2011).Religion also helps reduce the company's equity capital costs (Ghoul et al., 2012).Religion not only affects individual values, but also influences business ethics (Weaver and Agle, 2002; Li, 2007).Religion can also inhibit corporate accounting manipulation (Conroy and Emerson, 2004; Chen Donghua et al., 2013).Religion can also influence corporate investment behavior (Hilary and Hui, 2009), and religion can also influence investors' risk aversion preferences (Shu et al., 2010; Kumaret al., 2011).Religion has a positive impact on people's work ethics and professional ethics (Becker and Woessmann, 2009; Rietveld and van Burg, 2014).Religious beliefs are positively correlated with attitudes to economic growth (Guiso et al., 2003).

The social norm theory of religion believes that religion has the role of social norms. Many scholars have made outstanding contributions to the formation of this theory.Specifically, Akerlof's (1980) theoretical study points out that managers who do not comply with social norms have to bear the corresponding costs. When the degree of compliance of the manager's group is improved, the manager will gradually accept religious norms. Kohlberg (1984) believes that according to the theory of social norms, people like to be consistent with the same kind, so social norms will affect the behavior of specific individuals. Sunstein (1996) pointed out that individual actors usually take

corresponding actions according to social norms and try to avoid the cost of not being supported by their own groups ,especially avoiding costs or penalties for refusing to comply with widely accepted norms, beliefs or beliefs. Sunstein (1996) further states that “social norms determine the social significance of behavior and determine the social role of the agent. In this sense, social roles are but the product of social norms. However, social norms are also influenced by social significance. As a result, social norms can also be artifacts of social significance.”

In summary, under the influence of religious moral constraints and social norms, we believe that religious culture can effectively constrain the opportunistic behavior of managers, which Will have a positive impact on the quality of information disclosure for companies. Based on the above analysis, we propose the following assumptions: Hypothesis 1: Religious culture has a significant positive impact on the quality of information disclosure

3. Research Design

3.1 Sample selection and data source

This paper takes the 2008-2008 Shanghai-Shenzhen A-share listed company as a research sample and processes the data according to the following principles: (1) Excluding financial and insurance listed companies; (2) Excluding ST companies; (3) Excluding samples with missing financial data; (4) Excluding samples that cannot determine latitude and longitude and other missing variables; (5) In order to better investigate the influence of religion, the sample scope is limited to 26 provinces and municipalities in the Han area of the mainland (That is, it does not include Xinjiang, Inner Mongolia, Guangxi, Ningxia and Tibet); At the same time, because the three provinces of Gansu, Qinghai and Hainan do not contain national-level key temples, this article will eliminate them. Finally, a sample of 23 listed companies in the provinces (municipalities) was obtained; (6) In order to avoid the influence of singular values, this paper also performs Winsorize processing on 1% of continuous variables. Finally, 23,316 observation samples were obtained. The financial data in this paper is from the CSMAR and WIND databases.

3.2 Variable Definitions and Metrics

3.2.1 Quality of Information Disclosure (IDQ)

This paper uses two methods to measure information disclosure governance. First, learning from the existing literature (Zeng Ying, Lu Zhengfei, 2006; Gao Qiang, Wu Lina, 2008).Establish a scoring standard based on the quality characteristics of information disclosure, and then measure the overall quality of information disclosure of listed companies by rating the information disclosure of listed companies. In academic research, the rating of authoritative institutions is often used, and a few scholars establish their own score sheets for scoring. This paper uses the Shenzhen Stock Exchange's rating on the quality of information disclosure of listed companies in Shenzhen Stock Market to measure the overall quality of information disclosure of listed companies. The Shenzhen Stock Exchange has conducted an annual rating on information disclosure of listed companies since 2001.Taking a fiscal year as an assessment period, the exchange formulates evaluation criteria based on the quality characteristics of accounting information and the information disclosure rules of listed companies, and tracks the information disclosure behavior of listed companies throughout the year (Including mandatory disclosure and voluntary disclosure), and make a comprehensive evaluation of the quality of information disclosure (Including disclosure quantity and quality characteristics of accounting information, etc.).The key quality characteristics of information disclosure include disclosure compliance, authenticity, timeliness and comparability (consistency). The assessment results are divided into four levels: excellent, good, pass, and fail. The resulting variable is represented by IDQ. When examining whether the information

disclosure rating reaches the “good” rating, this paper considers that the sample information disclosure quality is good, so that the information disclosure quality variable is 1, otherwise it is 0. The second is to learn from the practice of Kim & Verrecchia (2001). This paper adopts the trading volume volatility dependence method, which is to re-examine the quality of information disclosure according to the degree of dependence of investors on the volume information information. The resulting variable is represented by KV. The logic of this approach is that the more information is disclosed, the less dependent investors are on the volume information. The greater the dependence on the company's information disclosure is, the greater the slope coefficient of the yield to the transaction volume is.

3.2.2 Religious culture

Drawing on the practice of the existing literature, the distance between the registered place of the listed company and the place of religious activities is used to measure the influence of the religious traditions of the listed companies. Using Google-Earth, Baidu map and other Internet tools to manually collect the registered address of the sample listed company and the latitude and longitude coordinates corresponding to 148 provincial key temples. The author calculate the distance between each listed company and 148 key temples according to the above coordinates. If there are influential temples near the place where the listed company is registered, listed companies are more susceptible to religious traditions. *Religion_200* and *Religion_300* represent the number of key temples within 200(300) km of the listed company's registered place, respectively.

3.3.3 Control variable

Referring to the existing literature, this paper also controls the following variables: The size of the company's assets (*Size*) is equal to the natural logarithm of the total assets; Growth of the company is equal to the annual growth rate of the company's operating income; Asset-liability ratio (*Lev*), equal to the ratio of total liabilities to total assets; Whether it is a dual job (*Dual*), such as the chairman and the general manager, the second job is 1; otherwise, it is 0. The proportion of independent directors (*Indep*) equals the number of independent directors / the total number of directors; First largest shareholder shareholding ratio (*First*); The ultimate controlling person's ownership nature (*SOE*), if it is a state-owned enterprise, it is 1, otherwise it is 0; Free cash flow (*FCF*).

3.4 Model design

$$IDQ_{i,t+1} = \beta_0 + \beta_1 Religion_{i,t} + \beta_2 ControlVariables + \varepsilon \quad (1)$$

Among them, β_0 is the intercept term, ε is the residual term, and $\beta_1—\beta_{13}$ is the regression coefficient.

4. Empirical Analysis

4.1 Descriptive statistical analysis

Table 1 Descriptive statistical analysis

Variable	Sample	Mean	Standard Deviation	Minimum	Median	Maximum
IDQ	23516	0.0100	0.0100	0.0149	0.0100	0.1200
Religion_200	23516	8.1100	7.1200	0	6	29
Religion_300	23516	14.1500	12.4200	0	11	44

Table 1 lists descriptive statistics for the main variables. As can be seen from the table, the mean value of the IDQ of the explanatory variable (company agent cost) is 0.0100, the standard deviation is 0.0100, and the maximum and minimum values are 0.1200 and 0.0149, respectively. It shows that under different environmental backgrounds, the agent cost level of enterprises has great difference. There are 8 temples within 200 km of the enterprise registration area, and the maximum number is 29, and the minimum is only 0. When the range is extended to 300 km, the average number of temples is about 14, up to 44, and the minimum is still zero.

4.2 Regression Analysis

Table 2. Hypothetical test result

	(1)	(2)	(3)	(4)
VARIABLES	IDQ	IDQ	KV	KV
Religion_200_{i, t}	-0.0231** (0.0379)	-0.0328* (0.0576)		
Religion_300_{i, t}			-0.0230** (0.0203)	-0.0287* (0.0611)
ControlVariables	Control	Control	Control	Control
Observations	23218	23218	23218	23218
Adjusted R-squared	0.044	0.044	0.045	0.044

Note: ***, **, and * indicate the significance level of 1%, 5%, and 10%, respectively, and the number in parentheses is the p-value of the two-tailed test.

Table 2 shows the test results of the influence of religious culture on the quality of corporate information disclosure. It can be seen that the coefficient of Religion 200 is significantly negative in regression (1), indicating that the increase of religious culture can significantly inhibit the increase of company agency costs. In regression (2), the coefficient of Religion_200 is also significantly negative; hypothesis 1 of this paper is verified. In the regressions (3) and (4), the coefficients of Religion 300 are significantly negative, indicating that the agency cost of the company has decreased significantly with the increase of the religious culture atmosphere in the region where the company is located. Hypothesis 1 of this paper is further verified.

5. Robustness Analysis

5.1 Metrics for changing religious culture

Referring to Du (2013; 2014), this paper re-separated by 20 km, and counted the number of religious sites within 120, 140, 160, 180, 220, 240, 260 and 280 km of the company's registered place, and re-examined the hypothesis and returned. The regression results remained basically unchanged.

5.2 Endogenous problem

The above regression results show that religious culture has a significant impact on the agency costs of enterprises. However, there may be some missing variables that affect the religious culture and the agency cost of the enterprise, which leads to deviations in the empirical results. In order to solve this potential endogenous problem, this paper draws on the existing literature (Chen Donghua et al., 2013) to introduce the number of award-winning religious sites owned by the province where the company is registered, divided by the province's population as a tool variable for religious culture. The test results show that the original hypothesis is still established after controlling for potential endogeneity problems.

6. Analysis Conclusion

This paper takes the Shenzhen A-share listed company in 2010-2018 as a sample to study the influence of the informal institutional factors of religious culture on the quality of corporate information disclosure. The study found that the religious culture atmosphere of the location of the enterprise does affect the quality of information disclosure. Under the same conditions, the more religious culture atmosphere of the enterprise is, the higher the quality of information disclosure is. On the contrary, the less religious culture atmosphere of the enterprise location is, the lower the quality of information disclosure of enterprises is.

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