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THE STUDY ON INFLUENTIAL FACTORS OF SRID IN CHINA

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Annotation
The term "corporate social responsibility" became popular in the 1960s and has remained a term used indiscriminately by many to cover legal and moral responsibility more narrowly construed (De George, Richard T, 2011, p.121). Nowadays, with the development of Chinese economy, this concept has been accepted by Chinese. Especially from the beginning of the 21st century, Chinese government and companies pay more and more attention on CSR. They have made some laws and regulations on CSR and social responsibility information disclosure (SRID). This paper tries to find the influential factors of SRID in China from companies themselves. As we know, external causes become operative through internal causes, but internal causes contribute to the principal aspect. As a result, we found that LA(logAsset), ROA(Return on Assets), ROE(Rate of Return on Common Stockholders' Equity), CR(Current Ratio), LR(Liability-assets Ratio), PE(P/ E ratios) are the internal factors of SRID in China. In order to look for these factors, this study uses correlation analysis and multiple variables linear regression analysis.
KEYWORDS: CSR, SRID, influential factors, China, regression analysis.

Introduction

With the development of market economy, enterprise plays a very important role in economic development. Enterprise is the creator of social wealth (Chell, Elizabeth, 2007, p.8); however, many problems occur because of the enterprise's profit policy, such as environmental pollution, non-protection of workers' rights, the invasion of consumers' interest.

The conflict between the desire of human being and the limited resources is becoming more and more serious. Facing all these problems, we found that the corporate social responsibility (CSR) is becoming more and more important.

With the globalization of world economy, we should consider more about the importance of enterprises in the world economy not only from the regional and profitable view (Intriligator, Michael D, 2004, p.488). And we should pay more attention on the CSR, such as environment pollution, community service, power utility and so on.

Due to the problems mentioned above, and to fix the problems of resource and society, the government requires the enterprise especially the listed companies to report the information on the CSR frequently by law. This paper, based on national and international literature, researches on the factors of social responsibility information disclosure (SRID), and sets the Chinese listed companies from Shenzhen Stock Exchange and Shanghai Stock Exchange as samples (Sóvágó, L., Gácsi, R., etc., 2014, p.24).

In order to understand the current situation of SRID and the problems of CSR report, we use correlation analysis and linear regression analysis to get down research on the CSR report.

Significance

Based on the Chinese listed companies from Shenzhen and Shanghai Stock Exchange, and according to the CSR theories and CSR report, the paper has a very distinguished significance in theory and practice. The main significance of this study is to help to understand the quality of social responsibility information disclosure in China, further more to improve the status quo of SRID in China.

This study uses social, economical and financial methods to focus on the factors of SRID in China, so this can help the following scholars to innovate in SRID and CSR theory. At the same time, this paper uses Chinese listed companies as empirical samples, so this study can provide some advice for Chinese government and Chinese companies to better their government and solve the problems of SRID and CSR.

The results of the study can help listed companies to fulfil the CSR and SRID better and even can help to regulate the actions of the listed companies in China.

Research structure and methods

In order to find the factors of SRID in China, this study contains 3 research steps. Firstly, this study uses descriptive analysis to make research on the change trend of the variables.

Secondly, we use correlation analysis to test the relation between the independent variables and dependent variable that we select. Thirdly, regression analysis is used to research on the relation between independent and dependent variables to find the really factors on the SRID.

The total research structure is shown in figure 1.

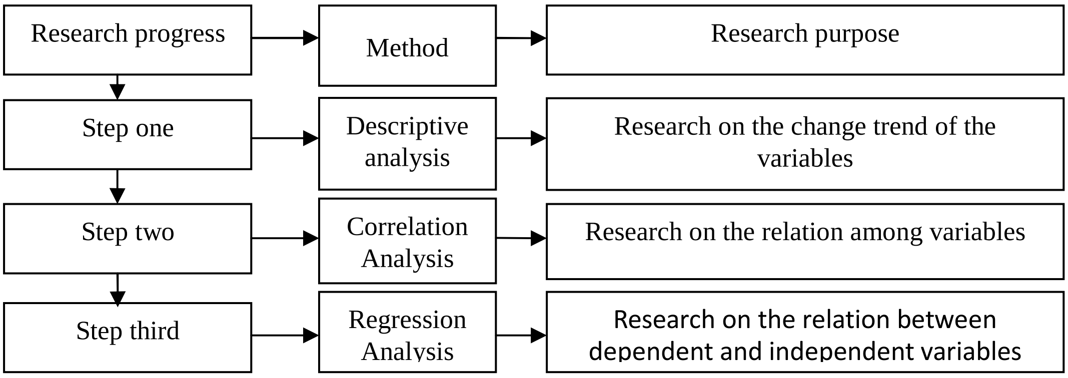

Fig. 1. The research structure

The selection of variables

On the selection of dependent variable, Li (2016, p38), through the method of the oral theme encoding technology, the frequency analysis, the reliability test etc., establishes the SRID evaluation framework of agricultural enterprises in China (table 1). And Li (2016, p. 23) uses AHP method to weight the evaluation framework.

According to Li (2016, p.23), the SRID evaluation framework of agricultural enterprises consists of four elements and 12 specific indicators. Details are shown in table1 below:

Table 1. SRID evaluation framework

First-Level	Second-Level	Third-Level
SRID Evaluation Framework A	Content quality B_1	Objectivity C_{11}
		Correctness C_{12}
		Credibility C_{13}
	Total quality B_2	Relevance C_{21}
		Completeness C_{22}
		Sufficiency C_{23}
	Expression quality B_3	Definition C_{31}
		Intelligibility C_{32}
		Conciseness C_{33}
	Effectiveness quality B_4	Timeliness C_{41}
		Adaptability C_{42}
		Testability C_{43}

Source: Own construction

This study uses this framework to evaluate the listed companies in China, use the final score as the dependent variable. In order to let 4 researchers to evaluate the listed companies in China separately and uses AHP method to get the weights, and we use the Ranking CSR Ratings by Lingrun Company, which is the authoritative third-party CSR rating agency in China. CSR reports ranking by Lingrun company contains ESG ranking (environment, society, government), service for CSR investors and so on.

The ratings by Lingrun Company is very good, however, the ratings only concerns the actions and activities by the listed companies, and the evaluation framework built by Li talks about the quality of SRID.

This study considers both of them, so we use the weight of the content quality (B2) in Li's evaluation framework and the ratings by Lingrun Company.

All the results are shown in table 1.

$$SC = Score \times B_2 \qquad (1)$$

SC: The final score of the listed companies

Score: Ranking CSR ratings by Lingrun Company

B2: The weight calculated according to the framework

Table 2. CSR reports ranking by Lingrun Company (partial)

No	Industry classification	Stock code	Enterprise	Rank	Prediction	Score	Weight	SC
1	Insurance	601318	Ping An	AA	positive	78.71	0.98	77.14
2	Mining	601088	Shen Hua	AA	positive	78.49	0.78	61.22
3	Medicine	600196	Fosun Pharma	AA	positive	76.14	0.85	64.72
4	Finance	601398	ICBC	AA-	positive	72.38	0.95	68.76
5	Transportation	601111	Air China	A+	positive	71.92	0.66	47.47
6	Estate	000002	Vanke	A+	positive	71.06	0.88	62.53
7	Insurance	601601	CPIC	A+	stable	70.06	0.63	44.14
8	Finance	600000	SPDB	A	stable	68.7	0.98	67.33
9	Finance	601998	CITIC	A	positive	68.14	0.79	53.83
10	Mining	601857	CNPC	A	positive	67.06	0.58	38.89

Source: http: //www.rksratings.com/

The select of independent variables, this study concerns four main parts of the listed companies, which are the scale of the companies, the financial performance of the companies, the pressure of leadership in companies, the development of companies. This study uses logAsset (LA) stand for the scale of the companies. In order to reflect the financial performance of the companies, we use ROA and ROE as two of the independent variables. Regarding the pressure of leadership in companies, this article uses current ratio (CR) and liability-assets ratio (LR). At last, this study uses P/E ratio to reflect the development of companies. All the details of independent and dependent variables are shown in the table 3.

Table 3. The description of variables

variables	Encode	Definition
The SRID score	SC	SC=Score*B2
Company scale	LA	logAsset=log(total assets)
Financial performance	ROA	ROA=Net income / total assets
	ROE	ROE = Net income / equity
Leadership pressure	CR	CR=current assets/ current liabilities
	LR	LR=total liabilities/ total assets
P/E ratio	PE	P/E ratio=price per share / earnings per share

Source: Own construction

Samples and data

The samples in this study are the listed companies in Shenzhen and Shanghai stock exchanges. We use their financial reports to calculate independent variables, and we use the ranking CSR rating by Lingrun Company and the weight given by our four researchers to calculate the dependent variable. In order to ensure the reliability of the research result, we remove some companies such ST companies and companies whose financial reports are incomplete, and at last we get 324 research samples. The descriptive analysis of the research samples are shown in table 4.

Table 4. Number of companies in the sample

Exchange place	Shanghai	Shenzhen	Total
Number	153	171	324

Source: Own construction

In order to reflect the whole situation of Chinese SRID and CSR, we select as many company types as we can, so the descriptive analysis of the industry category is shown in table 5.

Table 5. The descriptive analysis of the industry category

Industry category	Samples
Farming	24
Mining	31
manufacturing	132
Food	41
Clothing	44
furniture	25
Electronic information	8
Retail and others	19
Total	324

Source: Own construction

Correlation analysis

In order to test the correlation between the independent and dependent variables, we first use the SPSS 22.0 to do correlation analysis. Correlation analysis helps us to find the direction and strength of the correlation between the SRID and the factors of the companies. After processing the SPSS 22.0, the results are shown in table 6.

Table 6. The Correlations among the variables

		SC	LA	ROA	ROE	CR	LR	PE
SC	Pearson Correlation	1						
	Sig. (2-tailed)							
LA	Pearson Correlation	0.803	1					
	Sig. (2-tailed)	0.436						
ROA	Pearson Correlation	0.957**	0.209	1				
	Sig. (2-tailed)	0.000	0.222					
ROE	Pearson Correlation	0.973**	0.121	0.367**	1			
	Sig. (2-tailed)	0.000	0.483	0.000				
CR	Pearson Correlation	0.845*	0.423**	0.326	0.301	1		
	Sig. (2-tailed)	0.039	0.000	0.052	0.074			
LR	Pearson Correlation	-0.780**	0.412*	0.342**	0.470**	0.496**	1	
	Sig. (2-tailed)	0.000	0.013	0.000	0.000	0.002		
PE	Pearson Correlation	0.943**	0.863	0.379**	0.245**	0.198	0.210**	1
	Sig. (2-tailed)	0.000	0.816	0.000	0.000	0.248	0.000	

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Source: Own construction

As the correlation analysis shows, results are shown in table 6. We can see that there is a strong and positive

Pearson correlations are greater than 0.7, and some of them are greater than 0.9, such as the ROA, ROE and PE. From table 6, we can also see that relations between independent variables are not very strong, and most of their Pearson correlations are less than 0.5. Only one of relation between dependent variable (SC) and independent variables. All

them is significant, that is the relation between PE and LA (0.863), but the significance is 0.816 which means the relation is not significant. These tell us the variables we selected are suitable for the regression analysis.

Regression analysis

This article aims to find the real factors of SRID from all the independent variables, so we use all the independent variables and the dependent variable to construct the regression analysis model. The model is shown in the following formula.

$$SC = \partial_0 + \partial_1 LA + \partial_2 ROA + \partial_3 ROE + \partial_4 CR + \partial_5 LR + \partial_6 PE + \varepsilon \quad (2)$$

SC: Final Score of SRID

LA: logAsset

ROA: Return on Assets

ROE: Rate of Return on Common Stockholders' Equity

CR: Current Ratio

LR: Liability-assets Ratio

PE: P/ E ratios

This study uses the multiple variables linear regression analysis of SPSS 22.0 to look for the real factors of the SRID. After the analysis, the results can be seen in table 7 and table 8.

Table 7. Model Summary[b]

Model[b]	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.952[a]	.906	.912	21.21465

a. Predictors: (Constant), LA, ROA, ROE, CR, LR, PE

b. Dependent Variable: SC

From table 7, we can see that the total function can explain the major variance (more than 90%) of the economic development. For the model, R^2=0.906, which means that 90.6% of the variance of SC can be explained by the model. The adjusted R^2 is 0.912, which means that the regression equation fits our research data well. And the standard error of the estimate is 21.21465, which means that the prediction of the total function is of accuracy. So the models fit the actual situation of the nation in China, and then we continue with the multiple variables linear regression analysis.

This paper uses SPSS 22 software, puts the sample data into the model, and uses multiple variables linear regression models to estimate. The results are as follows (Table 8)

Table 8. Coefficients[a]

Model		B	t	Sig.
1	(Constant)	1.138	2.23	.000
	LA	2.120	1.04	.061
	ROA	1.503	3.43	.001
	ROE	1.340	3.12	.000
	CR	1.930	2.67	.044
	LR	-5.269	-2.11	.031
	PE	3.912	3.86	.000

a. Dependent Variable: SC

From table 8, we can conclude that the significance of most variables is less than 0.05 which means they are the factors of SRID. However, the p-value of LA (logAsset) is greater than 0.05, which means that the function of total assets on the SRID is not so significant. And the t-value of LA is less than 1.5, which means that the function of total assets on the SRID cannot last for long time. According to both of these, we remove the LA from the potential factors of SRID.

As the financial performance of companies, the p-values of ROA and ROE are near to 0, which mean the function of financial performance on the SRID and CSR is highly significant. The t-values of them are more than 3, which means the function of financial performance on the SRID and CSR can last for long time, so they should be selected as the factors of the SRID.

The p-values of CR (Current Ratio) and LR (Liability-assets Ratio) is less than 0.05, which means the function of debt-paying ability on SRID is significant. However, they are near to 0.05, which means, they are acceptable but not highly significant. The t-values of them are higher than 1.5, which tells us that the function of them are not for short time and can be used as the factors of SRID.

The p-value of PE (P/ E ratios) is 0, which means the function of PE on the SRID is highly significant. And the t-value is greater than 3, which tells us the function of company development on SRID is for long time, so the PE is the factor of SRID.

Conclusions

As the appearance of many environmental problems, food problems in China, our government, enterprises and media started focusing on the CSR and the CSR and SRID is a hot topic for scholars. Due to this, this paper wants to use some of Chinese listed companies as research sample, and use correlation analysis, linear regression analysis of SPSS 22.0 to look for the factors of SRID in China. Through our research, we found that ROA(Return on Assets), ROE(Rate of Return on Common Stockholders' Equity),CR(Current Ratio),LR(Liability-assets Ratio),PE(P/ E ratios) are the factors of SC(Final Score of SRID).

The financial performance of company has a positive relation with SRID. For a better financial performance, the company wants this performance to be continued, so they would like to embrace more social responsibilities and disclosure more information of CSR.

The debt-paying ability has a complicated relation with SRID. For CR(Current Ratio) is positive and LR(Liability-assets Ratio) is negative, which means short-term debt-paying ability has a positive relation and long-term debt-paying ability has a negative relation. To some degree, this tells us that some of Chinese listed companies are taking social responsibilities only for short-term profit not for long-term benefit, so they care more about short-term debt-paying ability.

The development of listed companies has a positive relation with SRID, which means the realization of the CSR relies on the development of listed companies. This also proves the theory that company is the creator of social wealth.

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