

# **Research on Sustainability Reporting in Hong Kong**

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## **ABSTRACT**

This study evaluates the sustainability reporting in Hong Kong. The relationship between economic performance and social and environmental disclosure is being investigated. Content analysis is used to construct the sustainability reporting index.

The study is based on the sustainability disclosure made in the annual reports of the listed companies in conglomerates, consumer goods, energy, financials, information technology, manufacturing, properties & construction, services and utilities.

The results show that firms with larger total assets and more debts to equity disclose more detailed information regarding sustainability. The findings also illustrate that different types of industries have different extents of disclosure.

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## **1. INTRODUCTION**

### **1.1 Statement of problem**

Sustainable development is commonly defined as “meet the needs of the present without compromising the ability of future generations to meet their own needs”.

There are three key dimensions of sustainability, namely, the economic, the social and the environmental. Sustainable development can be measured in terms of these three dimensions.

The economic impact might be the effect on local employment and livelihoods by the organizations operations; the social impact might include staff terms and conditions or projects in the community; the environmental impact might include the quality of waste water discharged or greenhouse gas emissions from operations.

As sustainable development has become more important nowadays, investors and consumers are demanding more and more information on a company’s environmental and social performance. There is an increasing demand for corporate sectors to adopt sustainability accounting in financial reporting. The practice of measuring and disclosing organization’s economic, social and environmental impacts on society in a written report and being accountable to internal and external stakeholders for organizational performance towards the goal of sustainable development is known as sustainability reporting.

Sustainability accounting provides a useful tool to identify, evaluate and manage social and environmental risks by identifying resource efficiency and cost savings and link improvements in social and environmental issues with financial opportunities. It also allows comparison and benchmarking of performance and identification of best practice. (The Sigma Guidelines-ToolKit Sustainability Accounting Guide 1999)

Development of sustainability reporting is comparatively slow in Hong Kong when comparing with other countries. In Japan, over 230 private sector organization prepared environmental reports; and the number was over 380 in the United States and over 740 in United Kingdom respectively. However, only 17 private sector organizations have reported their environmental performance in Hong Kong. (ACCA 2002)

Previous studies on the sustainability reporting also indicated the insufficient and unpopular reporting in Hong Kong. According to Jaggi, B& Zhao, R (1996), among 100 sampled HK firms, only 13% has disclosed environmental information from 1992 to 1994. Williams & Pei (1999) found a sample of HK listed company has, on average, only 10.53 lines of corporate social and environmental disclosure in the 1995 annual reports.

Currently, accounting for the financial aspects of an organization's performance is a

statutory requirement but accounting for sustainability is a voluntary activity in Hong Kong. We believe a good sustainability report is essential to enhance transparency and accountability of reports. In this research, we will study the sustainability reporting in the annual report of Hong Kong firms.

## **1.2 Objectives of the study**

The objective of this study is to investigate the extent to which the chosen independent variables of economic performance have a remarkable effect of the sustainable disclosure in Hong Kong as well as to examine whether sustainability reporting in different business sectors is different. The study also examines the performance of sustainability reporting of the chosen firm samples.

## **2. LITERATURE REVIEW**

### **2.1 Importance of Sustainability Reporting**

Popular studies called “ranking studies” successfully proved the usefulness of corporate social and environmental reporting (CSR). In the ranking studies, analysts, bankers and others were asked to rank various accounting data in the order of perceived importance. Studies from Belkaoui (1984); Benjamin and Stanga (1977) and Chenall and Juchau (1977) had all suggested that the financial community ranked CSR in categories “moderately important” and certainly more important than some issues to which the accounting profession has given considerable attention in the past.

Sustainability reporting provides a means of communication and engagement between a company and its stakeholders. Stakeholders typically include shareholders, investors, employees, customers, suppliers, communities and government. Stakeholders are increasingly interested in understanding the approach and performance of companies in managing the sustainability impacts of their activities, including the potential for value creation and business risk mitigation.

This has elevated the importance of sustainability reporting. A recent study by the Economist Intelligence Unit confirms that board of directors and senior executives are increasingly focusing on managing sustainability related issue.

## **2.2 History of Sustainability Reporting of Hong Kong**

In Hong Kong, the first issued report, covering environmental, health and safety performance of the company, was produced by CLP Holdings in 1997.

To pursue the sustainable disclosure, the Chief Executive introduced an environmental reporting initiative in the 1998 Policy Address. All government departments, bureau and government-owned organizations are mandated to produce yearly reports, disclosing their environmental performance from the year 1998 onwards. A total of 87 departments, bureau and semi-governmental organizations have subsequently produced environmental reports.

However, there are no mandatory reporting requirements for the private sectors in Hong Kong. And no reporting guideline has been set up to govern the production of sustainability reports. Hence, the preparation of sustainability reports is not common in Hong Kong. In 2002, 17 private sector organizations reported environmental performance; 13 organizations disclosed social information; only 2 prepared sustainability reports.

The first sustainability report was issued by Mass Transit Railway Corporation in April 2002. Shell Hong Kong Limited issued second report covering economic, environmental and social performance issues in the Jul on the same year. (ACCA 2002)

### **2.3 Sustainability Reporting and Economic Performance**

Our study test if the sustainability reporting would be affected by the economic performance instead of the environmental or social performance. Because we find that in the past, various researches sought to find out the relationship between the environmental disclosure and the environmental performance of companies. And the previous empirical evidence provided mixed results on the relationship between corporate environmental performance and the level of environmental disclosures. In 1990, Freedman & Wasley found that annual report environmental disclosure was not the indicator of actual environmental performance. In 2002, by controlling the firm size and industry classification of the samples, a result of significant negative relation between environmental performance and disclosure had been come up (Patten 2002). Later, in 2008, Yue Li et al. had found a positive association between environmental performance and the level of discretionary environmental disclosures by using a more rigorous research design.

It seems that there are no significant relationship between the disclosure and the environmental performance of companies. Therefore, instead of looking into the environmental performance, we test the other aspects i.e. the economic performance of firms. For the economic performance, we consider four different aspects: firm size, profitability, leverage level and growth opportunity of a company.

## **2.4 Sustainability Reporting Guideline**

The first comprehensive Sustainability Reporting Framework was developed by a European-based non-profit organization, the Global Reporting Initiative (GRI).

GRI's vision is that reporting on economic, environmental, and social performance by all organizations becomes as routine and comparable as financial reporting.

Nowadays, the GRI framework is the most widely used sustainability reporting framework in the world.<sup>1</sup>

The Sustainability Reporting Guidelines (GRI 2002) consist of standard disclosures guideline including performance indicators. These performance indicators are used as a standard to assess the extent of the sustainability disclosure in the annual reports. Some modification has been made. 12 aspects from environmental and social performance indicators are chosen as indicators for content analysis in the study. The chosen indicators are explained with relevant reasons as follows:

### **2.4.1 Environmental Indicators**

- i. Water: Large consumption of water will reduce the volume of water available, and hence alter the ecosystem. The reduction of water consumption through reuse and recycling can be a measurement of efficiency, resulting in a reduction

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<sup>1</sup> Global Reporting Initiative.<http://www.globalreporting.org/Home>

of water consumption, treatment, and disposal costs. Therefore, company should indicate the total volume or the percentage of water used and recycled.

ii. Energy: Energy consumption is a major contributor to environmental problem since the burning of fossil fuel energy ultimately generates greenhouse gas.

Using renewable energy more efficiently is essential to combating climate change. Company should disclose the energy consumption footprint and the initiative to increase energy efficiency.

iii. Waste: Inappropriate discharge of waste can bring significant negative impacts on the surrounding environment, potentially affecting soil, water, air,

biodiversity, and human health.

iv. Biodiversity: Production activities of firms on areas of high biodiversity value

would bring destruction to the natural habitats nearby. Firms may report the current actions, and future plans addressing potential impacts on biodiversity.

v. Emission: Greenhouse gas emission is the main reason of climate change. Firm should show its initiatives to reduce greenhouse gas emissions.

vi. Environmental Management System (EMS): Environmental policy should be set

up in an organization to combat environmental problems. Firm should show its responsibility and report the information in annual report.

## 2.4.2 Social Indicators

- vii. Employment: The size of a workforce is an important element of the organization that contributes to the overall economic development and sustainability of the workforce.
- viii. Occupational Health and Safety: Health and safety performance is a key measurement of an organization's duty of care. Firms should maintain a healthy and safety working environment for the continuous growth of employees.
- ix. Training and Education: Maintaining and improving human capital, particularly through training that expands the knowledge base of employees, is a key element in organizational development.
- x. Diversity and Opportunity: Effort is made to uphold the workforce diversity and equal opportunity that have direct impacts on an organization's reputation.
- xi. Community Involvement: Organization should state the amount of charitable donation and service as stakeholders are interested on the social contribution made by organization.
- xii. Customer Health and Safety: Organizations are expected to exercise due care in the design of their products and services to ensure they are fit for their intended use and do not pose unintended hazards to health and safety.

### **3. STATEMENT OF HYPOTHESES**

#### **3.1 Firm Size and Sustainability Reporting**

Prior research (Atiase 1985) had found that larger firms with better financial performance have greater incentives to disclose information. Moreover, according to the political hypothesis (Watts and Zimmerman 1986), larger firms attract greater attention from the media, policy makers, and regulators. They would be, therefore, under greater pressure to perform better on sustainability reporting.

*H1: Firm size is positively related to the sustainability reporting level*

#### **3.2 Profitability and Sustainability Reporting**

In 1992, a study (Roberts 1992) argued that firms with a better operating performance are likely to have a higher incentive to make more detailed environmental disclosures because they can afford to spend more on environmental abatement. In this regard, firms that perform better economically are expected to disclose more on sustainable development. Hence, we test this expectation with the following hypothesis:

*H2: Profitability is positively related to the sustainability reporting level*

#### **3.3 Leverage Level and Sustainability Reporting**

A number of disclosure studies (Leftwich et al. 1981) had argued that the demand for information increases as firm debt increases. As debt holders exercise pressure

on firms to disclose environmental related matters to assess potential future liabilities, it is expected that for firms with relatively more debts in their capital structure, more environmental disclosures would be provided.

*H3: Leverage level is positively related to the sustainability reporting level*

### **3.4 Growth Opportunity and Sustainability Reporting**

We expect that with better growth opportunity, firms tend to put effort on the improvement of disclosure level. Stakeholders can compare performance within a company and between different companies over time. With better growth prospect, more effort is expected to be done for stakeholders.

*H4: Growth opportunity of the firm is positively related to the sustainability reporting level*

### **3.5 Industry and Sustainability Reporting**

With the different government regulation, social scrutiny and social responsibility on industry, the sustainability reporting may be varied.

*H5: There is a difference of the sustainability reporting among various types of industry*

## 4. METHODOLOGY

### 4.1 Samples Selection and data collection

Firms are selected randomly and included as a sample if it can fulfill the following criteria. First, the firm must be listed on the Hong Kong Stock Exchange. Second, the firm must be year ended at 31 December 2008. Third, a complete set of annual report can be obtained from The Hong Kong Stock Exchange website (<http://www.hkex.com.hk/investor.htm>). The final sample consists of 180 firms from nine industries which are showed in Table 1.

INDUSTRY	NO OF SAMPLES
Conglomerates	10
Consumer Goods	19
Energy	20
Financials	21
Information Technology	17
Manufacturing	20
Properties & Construction	25
Services	32
Utilities	16
<b>Total</b>	180

Table 1 - Samples size in various industries

The analysis of quality and quantity disclosure of sustainability reporting is based on the information in the annual report. Data related to the economic performance is obtained from the Datastream.

#### **4.2 Measurement of dependent variable – Sustainability Reporting Index**

Content analysis is adopted for the measurement of sustainability reporting. The analysis method considers the occurrence of corporate social and environmental disclosure and the quality of the information.

According to the Sustainability Reporting Guideline published by Global Reporting Initiative, there are a number of sustainability aspects that can reasonably be expected to be discussed in Annual Reports and Accounts. Report indicators are grouped in three dimensions of sustainability - economic, environmental, and social.

In the content analysis, this study does not consider the economic dimension. It is because listed companies in Hong Kong are governed by the statutory requirements, the Hong Kong Accounting Standard, for the preparation of financial statements.

The volume and quality of economic performance disclosure of different companies are similar.

To analyze the social and environmental disclosure of company, the GRI guideline is used as a framework. (Appendix 1)

Since the reports obtained from the Hong Kong stock exchange website are in Adobe Acrobat format. “Search PDF” function is used to look for the different disclosure aspects. A list of search phrases is devised and used for the detection of the related aspects. (Appendix 2)

First, the researchers use the search function to look for the default search phrases in the annual report. If the search phrases are found and related disclosure aspects are mentioned, researchers identify the occurrence of disclosure as “1”. Otherwise, “0” is recorded.

After checking occurrence of disclosure, researcher analyzes the quality and the quantity of that information identified. Information considered as quality refers to information which is clearly illustrated and explained while quantitative information refers to information that relates to monetary terms or actual quantities.

The quality of disclosures is classified into four categories: 1) qualitative and quantitative disclosure; 2) qualitative but non-quantitative disclosure; 3) non-qualitative but quantitative disclosure; and 4) non-quantitative and non-qualitative disclosure.

These four categories are assigned with different scores as follows:

<b>Disclosure categories</b>	<b>Score</b>
Qualitative and Quantitative Disclosure	3
Qualitative but Non-quantitative Disclosure	2
Non-qualitative but Quantitative Disclosure	1
Non-quantitative and Non-qualitative Disclosure	0.5

Here are the example of the extent of the disclosure and the assigned score:

Disclosure categories	Score
Climate change has impact on company's long-term success. In 2008, company built on its understanding and expertise on responding to climate change and Lord Stern continued to advise the Group Chairman on economic development and climate change. Company was one of the first financial institutions to adopt the Climate Principles, a voluntary framework for action on climate change that covers all areas of financial services. In 2008, we replaced the air-cooled chillers in our headquarters building with water-cooled ones. Company has been working on greenhouse gases emission reduction of 12% from 2007 levels.	3
Climate change has impact on company's customers and therefore on company's long-term success. In 2008, company built on its understanding and expertise on responding to climate change and Lord Stern continued to advise the Group Chairman on economic development and climate change. Company was one of the first financial institutions to adopt the Climate Principles, a voluntary framework for action on climate change that covers all areas of financial services. In 2008, we replaced the air-cooled chillers in our headquarters building with water-cooled ones.	2
Climate change has the impact on company's customers and therefore on company's long-term success. Company has been working on greenhouse gases emission reduction of 12% from 2007 levels.	1
Climate change has the impact on company's long-term success.	0.5

Sustainability Reporting Index is used as the indicator for the sustainability

disclosure. The index is used as a dependent variable in the linear regression model.

It is calculated by the following formula:

$$\frac{\text{Total Quality Score}}{\text{Total Occurrence}}$$

Take Shangri-La Asia Limited (stock code 69) as an example, the Sustainability

Reporting Index is 2.1875.

Shangri-La Asia Limited				
	occurrence		quality disclosure	
<b>Environmental Aspects</b>				
Water	YES	1	qualitative but non-quantitative disclosure	2
Energy Use	YES	1	non-qualitative but quantitative disclosure	1
Waste Management	NO	0		
Biodiversity	YES	1	qualitative and quantitative disclosure	3
Emissions	YES	1	non-quantitative and non-quantitative disclosure	0.5
Environmental Management System(EMS)	YES	1	qualitative and quantitative disclosure	3
<b>Social Aspects</b>				
Employment	NO	0		
Occupational Health and Safety	YES	1	qualitative and quantitative disclosure	3
Training and Education	NO	0		
Diversity and Opportunity	YES	1	qualitative but non-quantitative disclosure	2
Community contribution	YES	1	qualitative and quantitative disclosure	3
Customer Health and Safety	NO	0		
		8		17.5
Sustainability Reopoting Index = 17.5/8 = 2.1875				

### 4.3 Measurement of independent variables

In this study, we use the regression model to test hypothesis 1, 2, 3 and 4 which are testing the relationship between the level of sustainability reporting and firm size, profitability, leverage level and growth opportunity of the companies.

$$SUSR = \beta_0 + \beta_1 SIZE + \beta_2 PRF + \beta_3 LEV + \beta_4 GROWTH$$

where:

*SUSR* = sustainability reporting index, *SIZE* = total assets, *PRF* = return on assets, *LEV* = debt to equity ratio, *GROWTH* = market value to book value of equity

### 4.4 Sustainability Reporting and Types of industry

To test the hypothesis 5, we compare sustainability reporting quantity and quality of various types of industry. The samples of firms are selected from nine different industries which are conglomerates, consumer goods, energy, financials, information technology, manufacturing, properties & construction, services and utilities. The result can be achieved by using descriptive statistics analysis.

## 5. RESULTS

### 5.1 Relationship between Economic Performance and Sustainability Reporting

Variables	Beta Coefficients	t-value	Sig.
(Constant)		6.684	.000
total asset (in billion)	.181	2.453	.015
ROA	.083	1.111	.286
Debt to equity ratio	.184	2.470	.014
Market to Book Value	.121	1.613	.109

Dependent Variable: SUSR

Table 2 – Regression results on relationship between economic performance and sustainability reporting

#### 5.1.1 Result of relationship between firm size and sustainability reporting

The regression result as shown in Table 2 indicates the total asset has a relationship with the sustainability reporting index. The p-value is 0.015 is much smaller than 0.05, which means the total asset imposes a significant effect on sustainability reporting. Hence, this result supports the hypothesis 1. The beta coefficient is positive which means the relationship between firm size and sustainability reporting is positive.

#### 5.1.2 Result of relationship between profitability and sustainability reporting

The regression result of return on asset and sustainability reporting index shows a non-significant relationship since the p-value is larger than the 0.05 level. This result means the return on assets does not play a significant role in sustainability reporting. Therefore, hypothesis 2 is not supported and return on asset is not positively related to the sustainability reporting.

### **5.1.3 Result of relationship between leverage level and sustainability reporting**

The regression result of debt to equity ratio and sustainability reporting index indicates 0.014 p-value which is smaller than the 0.05 level. Based on the result, it is known that there is a significant relationship between the leverage level and sustainability reporting. Moreover, with the positive value of beta coefficient, there is a positive relationship between the leverage level and sustainability reporting. Therefore, hypothesis 3 is supported.

### **5.1.4 Result of relationship between growth opportunity and sustainability reporting**

The regression result indicates a non-significant relationship between the market value of equity to book value of equity and sustainability reporting index since the p-value of two variable is 0.109. The result does not support hypothesis 4, so the growth opportunity of firm is not positively related to the sustainability reporting.

## **5.2 Comparison of the sustainability reporting among different industries**

The company samples are grouped into nine industries, which are conglomerate, consumer good, energy, financials, information technology, manufacturing, properties & construction, service and utilities.

### 5.2.1 Comparison of Sustainability Reporting Quantity among different industries

Table 3 shows the number of occurrence of mentioned aspects in annual reports for different industries. The value of occurrence is known as the number of aspects covered in the annual reports. In other words, it is the number of occurrence of disclosure with “1”.

INDUSTRY	Variable	N	Minimum	Maximum	Mean	Std. Deviation
Conglomerates	Occurrence	10	0	7	2.70	2.751
Consumer Good	Occurrence	19	0	3	.74	.933
Energy	Occurrence	20	0	7	1.30	2.080
Financials	Occurrence	21	0	8	2.43	2.357
Information Technology	Occurrence	17	0	4	.76	1.251
Manufacturing	Occurrence	20	0	6	1.60	2.186
Properties & Construction	Occurrence	25	0	3	1.08	.812
Service	Occurrence	32	0	8	1.84	2.172
Utilities	Occurrence	16	0	6	2.63	2.094

Table 3 – Descriptive Statistics of Occurrence on different industry consider only those provide sustainability disclosure

From the descriptive statistics result, the mean of occurrence variable for conglomerate industry is 2.7. Since it is the highest among the nine types of industries, it is known that conglomerate industry covered the most aspects in their annual reports.

Apart from the conglomerate industry, there are two other industries with average aspects coverage more than 2. These two are utilities industry and financials industry. The mean of occurrence for utilities industry and financials industry are

2.63 and 2.43 respectively.

Consumer good industry and information technology industry have a low coverage of environmental and social aspects in their annual reports. The average occurrence for both is below 1.

### 5.2.2 Comparison of Sustainability Reporting Quality among different industries

Descriptive statistics for sustainability reporting index of different industries are provided in Table 4.

INDUSTRY	Variable	N	Minimum	Maximum	Mean	Std. Deviation
Conglomerates	SUSR	10	.0	2.6	1.253	1.2352
Consumer Good	SUSR	19	.0	3.0	.816	1.0569
Energy	SUSR	20	.0	2.8	.790	1.0609
Financials	SUSR	21	.0	3.0	1.755	1.1900
Information Technology	SUSR	17	.0	3.0	.637	1.0282
Manufacturing	SUSR	20	.0	2.7	.705	.9219
Properties & Construction	SUSR	25	.0	3.0	1.230	1.0331
Service	SUSR	32	.0	3.0	1.168	1.0915
Utilities	SUSR	16	.0	3.0	1.620	1.1392

Table 4 – Descriptive Statistics of SUSR on different industry

Information technology industry provides the least environment and social disclosure while financials industry provides the most environment and social disclosure in their annual report, and the mean of sustainability reporting index are 0.637 and 1.755 respectively.

Utilities industry has the second highest SUSR value which is 1.620 .Among the

samples firms in utilities industry, CLP (stock code2) and China Power

International Development Limited (stock code2380) gain the maximum mark in the sustainability reporting index as they provide a good environmental and social disclosure in their annual report.(Appendix 3c)

The mean of sustainability reporting index for conglomerate industry is 1.253.

Comparing to the other two industries, the conglomerate is the top three industries with better sustainability reporting. However, the standard deviation, 1.2352 is high, indicating that there is a larger variation of quality of reporting among the firms in conglomerate industry.

The mean of sustainability reporting index for consumer goods industry and manufacturing industry are 0.816 and 0.705 respectively. Most of the firms among these industries do not provide sufficient environmental and social disclosure in the annual reports.

According to the result, it is found that energy industry does not do well in the sustainability reporting, especially on the environment aspects. The average sustainability reporting index of it is only 0.790.

For the properties & construction industry, the mean of sustainability reporting index is 1.230. And the one for service industry is 1.168.

### 5.3 Overall findings of the samples

Among the 180 samples, the mean of SUSR is 1.109 and the occurrence is 1.62.

In the study, we have chosen 180 firms as samples for content analysis. The analysis result indicates that among the 180 firms, 108 firms have mentioned at least one related environmental or social aspects in their annual reports. That means in the total samples, 60% contain sustainability information in their annual reports. Detail of the overall result is shown in Table 5 and Table 6.

Industry	no of firm samples	Samples possessed sustainability disclosure	% of samples possessed sustainability disclosure
Conglomerates	10	6	60%
Consumer Good	19	10	52.63%
Energy	20	9	45%
Financials	21	16	76.19%
Information Technology	17	6	35.29%
Manufacturing	20	9	45%
Properties & Construction	25	19	76%
Service	32	21	65.63%
Utilities	16	12	75%
<b>Total</b>	<b>180</b>	<b>108</b>	<b>60%</b>

Table 5– No. of firms has sustainability disclosure

	N	Minimum	Maximum	Mean	Std. Deviation
SUSR	180	0	3.0	1.109	1.1161
Occurrence	180	0	8	1.62	1.978
total asset (in BILLION)	180	.19	19533.87	349.7994	1874.55166
ROA	180	-.61	.65	.0500	.16684
Debt to equity ratio	180	.00	7.77	.7159	.98996
Market to Book Value	180	.42	32.45	2.9403	3.63887

Table 6– Descriptive Statistics of overall result

## **6. DISCUSSION**

### **6.1 Relationship between Sustainability Reporting and Economic Performance**

The result indicates that firm size plays an important role in the extent of sustainability reporting since large firms put more emphasis on their corporate image and use sustainability reporting as a tool for gaining or maintaining their social status and reputation. This finding is also consistent with the prior study that larger firms disclose more detailed information. Also, with the rising demand of corporate social responsibility (CSR), large firms are more capable to put more resources on CSR and disclose it.

The result shows that there is no relationship found between the profitability and the sustainability reporting. Firms with higher profitability may afford more on CSR and hence have more CSR disclosure. On the other hand, firms may also make profit at the expense of the environment and therefore have less disclosure. In other words, it is difficult to find out any relationship between the profitability and CSR disclosure level.

The result also finds that there is a significant relationship between debt-to-equity ratio and sustainability reporting. Sustainability reporting often involves the collection, collation and analysis of data on resource and materials usage, and the assessment of business processes. This process can help investors to identify

opportunities for cost savings and revenue generation through a more efficient use of resources and materials. A growing number of investors include sustainability considerations within their decisions making processes. Sustainability information can also help lenders to determine risk factors associated with the company's business practices. For example, they may be interested in the particular projects or other business activities regarding sustainable development in which they have invested (i.e. the direct impact of lending activities). This pressure has raised the importance of sustainability related issues within lending assessment procedures. In addition, the result shows that there is no relationship between the growth opportunity and the sustainability disclosure. The market value of equity to book value is an indication of how much shareholders are paying for the net assets of a company. Although sustainability reporting is critical to the long-term growth of a company, the loosen relationship found can be attributed to Hong Kong's immature development of sustainability reporting. Also, stakeholders may perceive the priority of sustainability reporting different from that of the corporations. Investors may not regard sustainability reporting as an important factor when they make investment decisions. Financial performance is still the most important factor.

## **6.2 Sustainability reporting of different industries**

Among the nine industries, financials industry rates the highest score in sustainability reporting and the ranking of aspects coverage is also one of the top three industries. The result indicates that financials industry provides more comprehensive sustainability reporting in their annual reports. This is because human resources are regarded as one of the most important assets in the financial industry; companies tend to voluntarily disclose more employee-related issues to boost a good public image. Most of the firms in financial industry have disclosed the structure of work force, occupational health and safety performance or training and education section on employees.

Moreover, financial company tends to have a larger business size and more resources are available for local community contribution. Regarding the samples of financials industry in this study, many of them are well-known organization, such as HSBC, Bank of China and China Life Insurance. This type of business possesses more resources for social contribution and it is more likely for them to show their commitment to sustainability in the annual reports.

In this study, companies of utilities industry also perform well in sustainability reporting. Both sustainability reporting index and the occurrence are ranked as the second highest among the various industries. As the business operations in utilities

industry has more direct impacts on the environment as compared to that of the other industries. There is a relatively higher public concern on the environmental impacts brought by those utilities companies during production. Therefore, it is more likely for them to disclose the environmental information in the annual reports.

In addition, utility companies maintain the infrastructure for a public service and provide services using that infrastructure. They are usually subject to forms of public control and regulation by local community-based groups and the government.

Examples are electricity and natural gas companies. In order to build up the reputation in the community, they tend to disclose more information on the social contributions. For example, in the annual report of CLP Holdings (stock code 2), it emphasized the importance of helping the community.

Comparing to other industries, conglomerates industry cover most aspects. It is due to the business nature of conglomerates industry. Since they have a various type of business, it is more likely for them to cover a wider range of aspects. Some well-known companies like Hutchison Whampoa Limited (stock code 13) and Wharf Holdings (stock code 4) has a good sustainability reporting in this study. The high standard deviation indicating the large variation of quality of reporting may be due to the diversified business nature of conglomerate industry. Different

corporations in this industry may have different reporting policies regarding sustainability.

Information technology rates the lowest score of sustainability reporting and the aspects coverage is also not sufficiently enough. This may be due to the fact that the business of information technology would bring a relatively smaller impact to the environment. Therefore, it is less likely for them to disclose the information of environmental aspects. On the other hand, companies in information technology industry are usually small in firm size. There would not be much for them to disclose on the employee-related issues.

For the energy industry, since energy consumption brings direct adverse impact to the environment, most energy firms do not disclose the impacts brought during production on the environment. Only those implementing the state policy of energy conservation and discharge reduction, such as China Petroleum & Chemical Corp (stock code 386) and China Coal Energy Company Ltd (stock code 1898), may disclose more information on the environmental aspects.

### **6.3 Sustainability reporting of all companies**

Although there is no mandatory requirement of sustainability reporting, there are still 60% of the companies presenting environmental and social information in their annuals reports. This result indicates that more than a half number of the firms in

Hong Kong have made an effort on preparing the sustainability reports. Other than the financial items, firms are willing to disclose more information about their business. This practice does not only increase the transparency of reporting, but also increases the confidence of stakeholders. It is known that sustainability reporting can build stakeholders trust, and make them feel positive about the investment.

The presentation method also places an important role in the reporting. Some companies report environmental and social issue as a part of chairman's statement.

However, some of the companies present the information in a separate section as 'Corporate Social Responsibility'. The latter one is a better way of presentation as readers can get more comprehensive information regarding environmental and social disclosure from a separate section.

Among the total samples, the aspects coverage of sustainability reporting is not as good as expected. Among the twelve aspects that we have chosen, the average aspects coverage of all samples is only 1.62. It is suggested that Hong Kong companies can follow the Sustainability Reporting Guideline of Global Reporting Initiative to prepare the sustainability reports in order to improve the aspects coverage in the sustainability disclosure.

## **7. LIMITATIONS AND RECOMMENDATIONS**

There are several limitations in this project.

1. The variables used may not be comprehensive enough to explain the relationship between sustainability reporting and economic performance.
2. The samples size of 180 companies may not be extensive enough to reflect the situation in Hong Kong.
3. The range of quality disclosure rating scale is only 0 to 3 which may not be able to provide an accurate rating for sustainability reporting.
4. The study on the one-year disclosure performance does not provide insights on the development of sustainability reporting in Hong Kong.

Regarding to the above limitations, a few recommendations are suggested.

1. Other variables could also be taken into consideration, such as the return on equity, earning per share or price earning ratio.
2. A larger sample base with more industries can be investigated. The samples should be taken from various industries and the amount of samples in each industry should be similar.
3. A wider range of rating scale can be set. For example, extra marks can be given to corporations which provide separate sustainability reports.
4. The research can be more comprehensive if a longer period is examined.

## **8. CONCLUSIONS**

In this research, the relationship among the firm size, profitability, leverage level and growth opportunity and the disclosure level is being tested. The results indicate that firm size and leverage level play a significant role in the level of sustainability disclosure.

The results also show that the nature of the industry has an association with the extent of sustainability disclosure. And financials industry has the best performance while the information technology industry performs the least satisfactory in the sustainability reporting.

One of the conclusions could be drawn that the Hong Kong's sustainability disclosure level is still insufficient and the aspects coverage is not comprehensive.

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## Appendix 1 – Sustainability reporting aspects and related contents

Aspects	Disclosure Contents
<b>Environmental indicators</b>	
1. Water	<ul style="list-style-type: none"> <li>● Total water use</li> <li>● Water saving action</li> <li>● Water sources and related ecosystems/habitats significantly affected by use of water</li> <li>● Annual withdrawals of ground and surface water as a percent of annual renewable quantity of water available from the sources</li> <li>● Total recycling and reuse of water</li> </ul>
2. Energy	<ul style="list-style-type: none"> <li>● Direct energy use segmented by primary source</li> <li>● Indirect energy use</li> <li>● Conservation and energy saving</li> <li>● Initiatives to use renewable energy sources and to increase energy efficiency</li> <li>● Energy consumption footprint (i.e., annualized lifetime energy requirements) of major products</li> <li>● Other indirect (upstream/downstream) energy use and implications, such as organizational travel, product lifecycle management, and use of energy-intensive materials</li> </ul>
3. Waste	<ul style="list-style-type: none"> <li>● Total amount of waste by type and destination</li> <li>● Treatment of waste, including composting, reuse, recycling, recovery, incineration, or landfilling</li> <li>● Significant discharges to water by type</li> <li>● Significant spills of chemicals, oils, and fuels in terms of total number and total volume</li> <li>● Water sources and related ecosystems/habitats significantly affected by discharges of water and runoff</li> </ul>
4. Biodiversity	<ul style="list-style-type: none"> <li>● Biodiversity conservation</li> <li>● Objectives, programmes, and targets for protecting and restoring native ecosystems and species in degraded areas</li> <li>● Number of IUCN Red List species with habitats in areas affected by operations</li> <li>● Business units currently operating or planning operations in or around protected or sensitive areas</li> </ul>
5. Emissions	<ul style="list-style-type: none"> <li>● Greenhouse gas emissions</li> </ul>

	<ul style="list-style-type: none"> <li>● Other relevant indirect greenhouse gas emissions</li> <li>● NOx, SOx, and other significant air emissions by type</li> <li>● Emission reduction</li> </ul>
6. Environmental Management System(EMS)	<ul style="list-style-type: none"> <li>● Pollution control</li> <li>● Prevention of environmental damage</li> <li>● Environmental audit</li> <li>● Environmental policy</li> </ul>
<b>Social indicators</b>	
7. Employment	<ul style="list-style-type: none"> <li>● Breakdown of workforce by region/country, employment type, and by employment contract</li> <li>● Net employment creation and average turnover segmented by region/country</li> <li>● Employee benefits beyond those legally mandated</li> </ul>
8. Occupational Health and Safety	<ul style="list-style-type: none"> <li>● Practices on recording and notification of occupational accidents and diseases</li> <li>● Standard injury, lost day, and absentee rates and number of work-related fatalities</li> <li>● Evidence of substantial compliance with the ILO Guidelines for Occupational Health Management Systems</li> </ul>
9. Training and Education	<ul style="list-style-type: none"> <li>● Average hours of training per year per employee by category of employee</li> <li>● Description of programmes to support the continued employability of employees and to manage career endings</li> <li>● Specific policies and programmes for skills management or for lifelong learning</li> </ul>
10. Diversity and Opportunity	<ul style="list-style-type: none"> <li>● Description of equal opportunity policies or programmes</li> <li>● Composition of senior management and corporate governance bodies, including female/male ratio and other indicators of diversity as culturally appropriate</li> <li>● Sexual equality and racial equality</li> </ul>
11. Community involvement	<ul style="list-style-type: none"> <li>● Awards received relevant to social, ethical, and environmental performance</li> <li>● Charitable donation and service</li> <li>● Other community activity disclosure</li> </ul>
12. Customer Health and Safety	<ul style="list-style-type: none"> <li>● Policy for preserving customer health and safety during use of products and services</li> <li>● Number of complaints upheld by regulatory or similar official bodies to oversee or regulate the health and safety of products and</li> </ul>

	<p>services</p> <ul style="list-style-type: none"><li>● Policy, management systems, and compliance mechanisms related to product information and labeling</li></ul>
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## Appendix 2 - List of search phrase for various aspects disclosure

<b>Environmental Aspects</b>	<b>Default Search Phrases</b>
1. Water	Abstraction, Estuary, Groundwater, Harmful, Lake, Marine, River, Water
2. Energy	Efficienc, Energy Efficienc, Energy Usage, Green Energy, Renewable
3. Waste	Hazardous, Incineration, Landfill, Packaging, Recycl, Toxic, Waste Pollution Discharge, Emission, Pollut
4. Biodiversity	Biodiversity, Brownfield, Conservation, Ecol, Ecos, Forest, Greenfield, Habitat, Land Use, Wildlife
5. Emissions	Carbon Dioxide, CCA, Climate Change, CO2, Greenhouse Gas
6. Environmental Management System(EMS)	Emas, EMS, Environmental Audit, ISO 14001
<b>Social Aspects</b>	<b>Default Search Phrases</b>
7. Employment	Employment, Staff, People, Employee
8. Occupational Health and Safety	Occupational accidents, Diseases, Standard injury
9. Training and Education	Training, Staff, People, Employee
10. Diversity and Opportunity	Diversity, Opportunity
11. Community involvement	Community, Donation, Social, Charitable, Society, Needy, Funding
12. Customer Health and Safety	Customer, Health and Safety

### Appendix 3a – Result of content analysis - Environmental Aspects

Stock code	Name	Industry	Environmental Aspects											
			occurrence	quality	occurrence	quality	occurrence	quality	occurrence	quality	occurrence	quality	occurrence	quality
			Water		Energy		Waste Management		Biodiversity		Emissions		EMS	
HK13	HUTCHISON WHAMPOA	Conglomerates	0	0	1	3	0	0	0	0	1	3	0	0
HK267	CITIC PACIFIC	Conglomerates	0	0	0	0	0	0	0	0	1	2	1	2
HK87	SWIRE PACIFIC 'B'	Conglomerates	0	0	0	0	0	0	0	0	1	3	0	0
HK1038	CHEUNG KONG INFR.HDG.	Conglomerates	0	0	0	0	0	0	0	0	0	0	0	0
HK291	CHINA RES.ENTREP.	Conglomerates	1	2	1	2	1	3	0	0	0	0	1	2
HK256	CHINA HAIDIAN HDG.	Conglomerates	0	0	0	0	0	0	0	0	0	0	0	0
HK36	FAR EAST HOLDINGS INTL.	Conglomerates	0	0	0	0	0	0	0	0	0	0	0	0
HK392	BEIJING ENTERPRISES HDG.	Conglomerates	0	0	1	0.5	0	0	0	0	0	0	0	0
HK4	WHARF HOLDINGS	Conglomerates	1	2	0	0	0	0	0	0	1	3	0	0
HK625	RREEF CHINA COML. TRUST	Conglomerates	0	0	0	0	0	0	0	0	0	0	0	0
HK2357	AVICHINA IND.& TECH.'H'	Consumer Good	0	0	0	0	0	0	0	0	0	0	0	0
HK2333	GREAT WALL MOTOR CO.'H'	Consumer Good	0	0	0	0	0	0	0	0	0	0	0	0
HK1188	FAR EAST GLDN.RES.GP.	Consumer Good	0	0	0	0	0	0	0	0	0	0	0	0
HK359	CHINA HAISHENG JUICE HDG.	Consumer Good	0	0	0	0	0	0	0	0	0	0	0	0
HK1093	CHINA PHARMACEUTICAL	Consumer Good	0	0	0	0	0	0	0	0	0	0	0	0
HK157	NATURAL BEAUTY BIOTECH.	Consumer Good	0	0	0	0	0	0	0	0	0	0	0	0
HK1177	SINO BIOPHM.	Consumer Good	0	0	0	0	0	0	0	0	0	0	0	0
HK8069	TONG REN TANG TECHS.'H'	Consumer Good	0	0	0	0	0	0	0	0	0	0	0	0
HK593	QUALITY HLTHCR.ASIA	Consumer Good	0	0	0	0	0	0	0	0	0	0	0	0
HK263	CHINA YUNNAN TIN MIN.	Consumer Good	0	0	0	0	0	0	0	0	0	0	0	0
HK1223	SYMPHONY HOLDINGS	Consumer Good	0	0	0	0	0	0	0	0	0	0	0	0
HK2331	LI NING	Consumer Good	0	0	0	0	0	0	0	0	0	0	0	0
HK605	KPI	Consumer Good	0	0	0	0	0	0	0	0	0	0	0	0
HK1212	LIFESTYLE INTL.HDG.	Consumer Good	0	0	0	0	0	0	0	0	0	0	0	0
HK8277	WUMART STORES 'H'	Consumer Good	0	0	0	0	0	0	0	0	0	0	0	0
HK758	JUNEFIELD DEPT.STORE GP.	Consumer Good	0	0	0	0	0	0	0	0	0	0	0	0
HK3368	PARKSON RETAIL GROUP	Consumer Good	0	0	0	0	0	0	0	0	0	0	0	0
HK3308	GOLDEN EAGLE RETAIL GP.	Consumer Good	0	0	0	0	0	0	0	0	0	0	0	0
HK1880	BELLE INTERNATIONAL HDG.	Consumer Good	0	0	0	0	0	0	0	0	0	0	1	0.5
HK1088	CHINA SHENHUA EN.CO.'H'	Energy	0	0	0	0	0	0	0	0	0	0	1	2
HK578	DYNAMIC ENERGY HOLDINGS	Energy	0	0	0	0	0	0	0	0	0	0	0	0
HK342	NEWOCEAN ENERGY HDG.	Energy	0	0	0	0	0	0	0	0	0	0	0	0

Stock code	Name	Industry	Environmental Aspects											
			occurrence	quality	occurrence	quality	occurrence	quality	occurrence	quality	occurrence	quality	occurrence	quality
			Water		Energy		Waste Management		Biodiversity		Emissions		EMS	
HK1393	HIDILI IND.INTL.DEV.	Energy	0	0	0	0	0	0	0	0	0	0	0	
HK857	PETROCHINA 'H'	Energy	0	0	0	0	0	0	0	0	0	0	0	
HK386	SINOPEC 'H'	Energy	1	3	1	3	1	3	0	0	1	3	0	0
HK883	CNOOC	Energy	0	0	1	2	0	0	0	0	0	0	0	0
HK91	NEW SMART ENERGY GROUP	Energy	0	0	0	0	0	0	0	0	0	0	0	
HK1205	CITIC RESOURCES HDG.	Energy	0	0	0	0	0	0	0	0	0	0	0	
HK2883	CHINA OILFIELD SVS.'H'	Energy	0	0	1	2	0	0	0	0	1	2	0	0
HK639	FUSHAN INTL.ENERGY GP.	Energy	0	0	0	0	0	0	0	0	0	0	1	0.5
HK603	CHINA OIL AND GAS GP.	Energy	0	0	0	0	0	0	0	0	0	0	0	0
HK1898	CHINA COAL ENERGY 'H'	Energy	0	0	1	3	1	3	0	0	1	1	0	0
HK135	CNPC HONG KONG	Energy	0	0	0	0	0	0	0	0	0	0	0	0
HK568	SHANDONG MOLONG PTL.MCH.'H'	Energy	0	0	0	0	0	0	0	0	0	0	0	0
HK839	ANHUI TIANDA OIL PIPE 'H'	Energy	0	0	0	0	0	0	0	0	0	0	0	0
HK934	SINOPEC KANTONS HOLDINGS	Energy	0	0	0	0	0	0	0	0	0	0	0	0
HK3303	JUTAL OFFSHORE OIL SVS.	Energy	0	0	0	0	0	0	0	0	0	0	0	0
HK554	HANS ENERGY	Energy	0	0	0	0	0	0	0	0	0	0	0	0
HK3337	ANTON OILFIELD SVS.GROUP	Energy	0	0	0	0	0	0	0	0	0	0	0	0
HK11	HANG SENG BANK	Financials	0	0	1	3	0	0	1	2	1	3	1	3
HK2388	BOC HONG KONG (HDG.)	Financials	1	2	1	2	0	0	0	0	1	2	1	2
HK349	INDL.& CMLBK.OF CHIN.AI.	Financials	0	0	0	0	0	0	0	0	0	0	0	0
HK3968	CHINA MERCHANTS BANK 'H'	Financials	0	0	0	0	0	0	0	0	0	0	0	0
HK5	HSBC HOLDINGS	Financials	1	3	1	3	0	0	1	2	0	0	0	0
HK575	REGENT PACIFIC GP.	Financials	0	0	0	0	0	0	0	0	0	0	0	0
HK636	FUBON BANK (HONG KONG)	Financials	0	0	0	0	0	0	0	0	0	0	0	0
HK69	SHANGRI-LA ASIA	Financials	1	2	1	1	0	0	1	3	1	0.5	1	3
HK1398	INDL.& COML.BK.OF CHINA 'H'	Financials	0	0	1	2	0	0	0	0	1	3	1	2
HK3988	BANK OF CHINA 'H'	Financials	0	0	0	0	0	0	0	0	0	0	0	0
HK440	DAH SING FINANCIAL HDG.	Financials	0	0	0	0	0	0	0	0	0	0	0	0
HK293	CATHAY PACIFIC AIRWAYS	Financials	0	0	1	3	0	0	0	0	1	3	0	0
HK302	WING HANG BANK	Financials	0	0	0	0	0	0	0	0	0	0	1	3
HK2628	CHINA LIFE INSURANCE 'H'	Financials	0	0	0	0	0	0	0	0	0	0	0	0
HK2328	PICC PROPERTY & CLTY.'H'	Financials	0	0	0	0	0	0	0	0	0	0	0	0

Stock code	Name	Industry	Environmental Aspects											
			occurrence	quality	occurrence	quality	occurrence	quality	occurrence	quality	occurrence	quality		
			Water		Energy		Waste Management		Biodiversity		Emissions		EMS	
HK1049	CELESTIAL ASIA SECS.HDG.	Financials	0	0	0	0	0	0	0	0	0	0	0	
HK378	CIAM GROUP	Financials	0	0	0	0	0	0	0	0	0	0	0	
HK428	HARMONY ASSET	Financials	0	0	0	0	0	0	0	0	0	0	0	
HK626	PUBLIC FINANCIAL HDG.	Financials	0	0	0	0	0	0	0	0	0	0	0	
HK388	HONG KONG EXS.& CLEAR.	Financials	0	0	0	0	0	0	0	0	0	0	0	
HK335	UPBEST GROUP	Financials	0	0	0	0	0	0	0	0	0	0	0	
HK763	ZTE 'H'	Information Technology	0	0	1	2	1	2	0	0	0	0	1	1
HK553	NANJING PANDA ELT.'H'	Information Technology	0	0	0	0	0	0	0	0	0	0	0	0
HK1211	BYD 'H'	Information Technology	0	0	1	2	0	0	0	0	0	0	0	0
HK3335	DBA TELECM.ASIA HDG.	Information Technology	0	0	0	0	0	0	0	0	0	0	0	0
HK2028	JOLIMARK HOLDINGS	Information Technology	0	0	0	0	0	0	0	0	0	0	0	0
HK630	JACKIN INTL.HDG.	Information Technology	0	0	0	0	0	0	0	0	0	0	0	0
HK85	CHINA ELECTRONICS	Information Technology	0	0	0	0	0	0	0	0	0	0	0	0
HK2018	AAC ACOUSTIC TECHS.HDG.	Information Technology	0	0	0	0	0	0	0	0	0	0	0	0
HK154	BEIJING DEV.(HONG KONG)	Information Technology	0	0	0	0	0	0	0	0	0	0	0	0
HK8045	JIANGSU NANDASOFT 'H'	Information Technology	0	0	0	0	0	0	0	0	0	0	0	0
HK939	CHINA CON.BANK 'H'	Information Technology	0	0	1	2	0	0	0	0	0	0	0	0
HK596	INSPUR INTERNATIONAL	Information Technology	0	0	0	0	0	0	0	0	0	0	0	0
HK536	TRADELINK ELT.COM.	Information Technology	0	0	0	0	0	0	0	0	0	0	0	0
HK700	TENCENT HOLDINGS	Information Technology	0	0	0	0	0	0	0	0	0	0	0	0
HK903	TPV TECHNOLOGY	Information Technology	0	0	0	0	0	0	0	0	0	0	0	0
HK2038	FOXCONN INTL.HDG.	Information Technology	0	0	0	0	0	0	0	0	0	0	0	0
HK3336	JU TENG INTL.HDG.	Information Technology	0	0	0	0	0	0	0	0	0	0	0	0
HK430	ORIENTAL EXPLORER HDG.	Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
HK1072	DONGFANG ELECTRIC 'H'	Manufacturing	0	0	0	0	0	0	0	0	0	1	0	0
HK1184	SAS DRAGON HOLDINGS	Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
HK300	SHENJI GROUP KUMATO.'H'	Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
HK31	CHINA AEROS.INTL.HDG.	Manufacturing	0	0	0	0	0	0	0	0	0	1	0	0
HK379	PME GROUP	Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
HK517	COSCO INTL.HDG.	Manufacturing	0	0	1	3	1	2	0	0	0	0	0	0
HK521	SHOUGANG CCRD.TECH.HDG.	Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
HK2727	SHANGHAI ELEC.GP.CO.'H'	Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0

Stock code	Name	Industry	Environmental Aspects											
			occurrence	quality	occurrence	quality	occurrence	quality	occurrence	quality	occurrence	quality	occurrence	quality
			Water		Energy		Waste Management		Biodiversity		Emissions		EMS	
HK889	DATRONIX HOLDINGS	Manufacturing	0	0	0	0	0	0	0	0	0	0	0	
HK3355	ADVANCED SEMICON.MNFG. 'H'	Manufacturing	0	0	0	0	0	0	0	0	0	0	0	
HK1033	SINOPEC YIZHENG CHM.FRE. 'H'	Manufacturing	0	0	0	0	0	0	0	0	0	1	1	
HK297	SINOFERT HOLDINGS	Manufacturing	0	0	1	3	1	2	0	0	1	3	1	2
HK103	SHOUGANG CCRD.CEN.HDG.	Manufacturing	0	0	0	0	0	0	0	0	0	0	0	
HK1208	MINMETALS RESOURCES	Manufacturing	0	0	0	0	0	0	0	0	0	0	0	
HK637	LEE KEE HOLDINGS	Manufacturing	0	0	0	0	0	0	0	0	0	0	0	
HK689	EPI HOLDINGS	Manufacturing	0	0	0	0	0	0	0	0	0	0	0	
HK323	MAANSHAN IRON & STL. 'H'	Manufacturing	0	1	1	3	1	1	0	0	1	1	1	3
HK2600	ALUMINUM CORP.OF CHINA 'H'	Manufacturing	0	0	0	0	0	0	0	0	0	0	0	
HK2899	ZIJIN MINING GROUP 'H'	Manufacturing	0	0	0	0	1	1	0	0	1	1	0	0
HK1060	SHANGHAI ALLIED CEMENT	Properties & Construction	0	0	0	0	0	0	0	0	0	0	0	
HK1800	CHINA COMMS.CON 'H'	Properties & Construction	0	0	0	0	0	0	0	0	0	0	0	
HK390	CHINA RAILWAY GROUP 'H'	Properties & Construction	0	0	0	0	0	0	0	0	0	0	0	
HK123	GUANGZHOU INV.	Properties & Construction	0	0	0	0	0	0	0	0	0	0	0	
HK127	CHINESE ESTATES HDG.	Properties & Construction	0	0	0	0	0	0	0	0	0	1	0.5	
HK156	LIPPO CHINA RESOURCES	Properties & Construction	0	0	0	0	0	0	0	0	0	0	0	
HK1176	NAM FONG INTL.HDG.	Properties & Construction	0	0	0	0	0	0	0	0	0	0	0	
HK1200	MIDLAND HOLDINGS	Properties & Construction	0	0	1	2	0	0	0	0	0	0	0	
HK173	K WAH INTERNATIONAL HDG.	Properties & Construction	0	0	0	0	0	0	0	0	0	0	0	
HK190	HKC HOLDINGS	Properties & Construction	0	0	0	0	0	0	0	0	0	0	0	
HK2868	BEIJING CAPITAL LAND 'H'	Properties & Construction	0	0	0	0	0	0	0	0	0	0	0	
HK251	SEA HOLDINGS	Properties & Construction	0	0	0	0	0	0	0	0	0	0	0	
HK3900	GREENTOWN CHINA HDG.	Properties & Construction	0	0	0	0	0	0	0	0	0	0	0	
HK2337	SHANGHAI FORTE LAND 'H'	Properties & Construction	0	0	0	0	0	0	0	0	0	0	0	
HK258	TOMSON GROUP	Properties & Construction	0	0	0	0	0	0	0	0	0	0	0	
HK2777	GUANGZHOU R&F PROPS.'H'	Properties & Construction	0	0	0	0	0	0	0	0	0	0	0	
HK28	TIAN AN CHINA INVS.	Properties & Construction	0	0	0	0	0	0	0	0	0	0	0	
HK34	KOWLOON DEVELOPMENT	Properties & Construction	0	0	0	0	0	0	0	0	0	0	0	
HK369	USI HOLDINGS	Properties & Construction	0	0	0	0	0	0	0	0	0	0	0	
HK59	SKYFAME REALTY (HDG.)	Properties & Construction	0	0	0	0	0	0	0	0	0	0	0	
HK754	HOPSON DEVELOPMENT HDG.	Properties & Construction	0	0	0	0	0	0	0	0	0	0	0	

Stock code	Name	Industry	Environmental Aspects										
			occurrence	quality	occurrence	quality	occurrence	quality	occurrence	quality	occurrence	quality	
			Water		Energy		Waste Management		Biodiversity		Emissions		EMS
HK813	SHIMAO PROPERTY HOLDINGS	Properties & Construction	0	0	0	0	0	0	0	0	0	0	0
HK1	CHEUNG KONG HOLDINGS	Properties & Construction	0	0	0	0	0	0	0	0	0	0	0
HK20	WHEELLOCK AND CO.	Properties & Construction	0	0	0	0	0	0	0	0	0	0	0
HK604	SHENZHEN INVESTMENT	Properties & Construction	0	0	0	0	0	0	0	0	0	0	0
HK1189	WING ON TRAVEL (HDG.)	Service	0	0	0	0	0	0	0	0	0	0	0
HK200	MELCO INTL.DEV.	Service	0	0	0	0	0	0	0	0	0	0	0
HK2006	SHANGHAI JIN JIANG INTL. HTLS.'H'	Service	0	0	1	2	0	0	0	0	0	0	0
HK228	CHINA ENERGY DEV.HDG.	Service	0	0	0	0	0	0	0	0	0	0	0
HK308	CHINA TRVL.INTL.INV.HK.	Service	0	0	0	0	0	0	0	0	0	0	0
HK557	CITY E-SOLUTIONS	Service	0	0	0	0	0	0	0	0	0	0	0
HK27	GALAXY ENTERTAINMENT GP.	Service	0	0	1	0.5	0	0	0	0	0	0	0
HK45	HONGKONG & SHAI HTLS.	Service	1	3	1	2	1	2	0	0	0	0	0
HK51	HARBOUR CENTRE DEV.	Service	0	0	0	0	0	0	0	0	0	0	0
HK78	REGAL HOTELS INTL.HDG.	Service	0	0	0	0	0	0	0	0	0	0	0
HK1105	SING TAO NEWS	Service	0	0	0	0	0	0	0	0	0	0	0
HK8292	HC INTERNATIONAL	Service	0	0	0	0	0	0	0	0	0	0	0
HK730	SHOUGANG CCRD.GRD.GP.	Service	0	0	0	0	0	0	0	0	0	0	0
HK753	AIR CHINA 'H'	Service	0	0	0	0	0	0	0	0	0	0	0
HK2387	INTEGRATED DS.SVS.GP.	Service	0	0	1	0.5	1	2	0	0	1	0.5	0
HK1138	CHINA SHIPPING DEV.'H'	Service	0	0	0	0	0	0	0	0	0	0	0
HK62	TRANSPORT INTL.HDG.	Service	0	0	1	3	1	3	0	0	1	3	0
HK1055	CHINA SOUTHERN AIRL.'H'	Service	0	0	1	2	0	0	0	0	1	2	0
HK66	MTR	Service	0	0	0	0	0	0	0	0	0	1	2
HK1052	GZI TRANSPORT	Service	0	0	0	0	0	0	0	0	0	0	0
HK1098	ROAD KING INFR.	Service	0	0	0	0	0	0	0	0	0	0	0
HK144	CHINA MRCH.HDG.INTL.	Service	0	0	1	0.5	0	0	0	0	0	0	0
HK2866	CHINA SHIP.CTNR.LIN.'H'	Service	0	0	0	0	0	0	0	0	0	1	0.5
HK1919	CHINA COSCO HDG.'H'	Service	0	0	1	3	0	0	0	0	1	2	0
HK548	SHENZHEN EXPRESSWAY 'H'	Service	1	2	0	0	0	0	0	0	0	1	1
HK598	SINOTRANS 'H'	Service	0	0	0	0	0	0	0	0	0	1	1
HK610	WAI KEE HOLDINGS	Service	0	0	0	0	0	0	0	0	0	0	0
HK728	CHINA TELECOM 'H'	Service	0	0	1	2	0	0	0	0	1	2	0

Stock code	Name	Industry	Environmental Aspects											
			occurrence	quality	occurrence	quality	occurrence	quality	occurrence	quality	occurrence	quality	occurrence	quality
			Water		Energy		Waste Management		Biodiversity		Emissions		EMS	
HK762	CHINA UNICOM (HONG KONG)	Service	0	0	0	0	0	0	0	0	0	0	0	0
HK1045	APT SATELLITE HDG.	Service	0	0	0	0	0	0	0	0	0	0	0	0
HK941	CHINA MOBILE	Service	0	0	1	3	0	0	0	0	0	0	0	0
HK2332	HUTCHISON TELECOM.INTL.	Service	0	0	0	0	0	0	0	0	0	0	1	0.5
HK1071	HUADIAN POWER INTL.'H'	Utilities	0	0	1	2	0	0	0	0	1	3	0	0
HK902	HUANENG POWER INTL.'H'	Utilities	0	0	1	2	0	0	0	0	0	0	1	0.5
HK991	DATANG INTL.PWR.GNRTN.'H'	Utilities	0	0	1	2	0	0	0	0	1	2	0	0
HK2	CLP HOLDINGS	Utilities	0	0	1	3	0	0	0	0	1	3	0	0
HK3928	ZHENGZHOU GAS 'H'	Utilities	0	0	0	0	0	0	0	0	0	0	0	0
HK3	HONG KONG AND CHINA GAS	Utilities	0	0	1	3	1	2	0	0	0	0	0	0
HK8290	TIANJIN TIANLIAN PUB. UTILS.'H'	Utilities	0	0	0	0	0	0	0	0	0	0	0	0
HK6	HONG KONG ELECTRIC	Utilities	0	0	1	2	0	0	0	0	1	3	1	3
HK2688	XINAO GAS HOLDINGS	Utilities	0	0	1	2	0	0	0	0	1	3	0	0
HK836	CHINA RES.POWER HDG.	Utilities	0	0	0	0	0	0	0	0	0	0	1	2
HK1083	TOWNGAS CHINA	Utilities	0	0	0	0	0	0	0	0	0	0	0	0
HK2380	CHINA POWER INTL.DEV.	Utilities	0	0	1	3	1	3	0	0	1	3	0	0
HK3800	GCL-POLY ENERGY HOLDINGS	Utilities	0	0	1	2	0	0	0	0	1	3	0	0
HK1065	TIANJIN CAP.ENV.PROTC. GP.'H'	Utilities	0	0	0	0	0	0	0	0	0	0	0	0
HK8290	TIANJIN TIANLIAN PUB. UTILS.'H'	Utilities	0	0	0	0	0	0	0	0	0	0	0	0
HK622	ENERCHINA HOLDINGS	Utilities	0	0	0	0	0	0	0	0	0	0	0	0

## Appendix 3b– Result of content analysis - Social Aspects

Stock code	Name	Industry	Social Aspects											
			occurrence	quality	occurrence	quality	occurrence	quality	occurrence	quality	occurrence	quality	occurrence	quality
			Employment		Occupational Health and Safety		Training and Education		Diversity and Opportunity		Community involvement		Customer Health and Safety	
HK13	HUTCHISON WHAMPOA	Conglomerates	0	0	1	2	0	0	0	0	1	3	1	2
HK267	CITIC PACIFIC	Conglomerates	0	0	1	2	0	0	0	0	1	2	0	0
HK87	SWIRE PACIFIC 'B'	Conglomerates	0	0	1	2	1	2	0	0	1	3	1	2
HK1038	CHEUNG KONG INFR.HDG.	Conglomerates	0	0	0	0	0	0	0	0	0	0	0	0
HK291	CHINA RES.ENTREP.	Conglomerates	0	0	1	2	0	0	0	0	1	3	1	3
HK256	CHINA HAIDIAN HDG.	Conglomerates	0	0	0	0	0	0	0	0	0	0	0	0
HK36	FAR EAST HOLDINGS INTL.	Conglomerates	0	0	0	0	0	0	0	0	0	0	0	0
HK392	BEIJING ENTERPRISES HDG.	Conglomerates	0	0	0	0	0	0	0	0	0	0	0	0
HK4	WHARF HOLDINGS	Conglomerates	0	0	1	2	1	3	0	0	1	3	0	0
HK625	RREEF CHINA COML.TRUST	Conglomerates	0	0	0	0	0	0	0	0	0	0	0	0
HK2357	AVICHINA IND.& TECH.'H'	Consumer Good	0	0	0	0	1	2	0	0	0	0	0	0
HK2333	GREAT WALL MOTOR CO.'H'	Consumer Good	0	0	0	0	1	2	0	0	0	0	0	0
HK1188	FAR EAST GLDN.RES.GP.	Consumer Good	0	0	0	0	0	0	0	0	0	0	0	0
HK359	CHINA HAISHENG JUICE HDG.	Consumer Good	0	0	0	0	1	0.5	0	0	0	0	0	0
HK1093	CHINA PHARMACEUTICAL	Consumer Good	0	0	0	0	0	0	0	0	0	0	0	0
HK157	NATURAL BEAUTY BIOTECH.	Consumer Good	0	0	0	0	0	0	0	0	1	1	0	0
HK1177	SINO BIOPHM.	Consumer Good	0	0	0	0	0	0	0	0	0	0	0	0
HK8069	TONG REN TANG TECHS.'H'	Consumer Good	0	0	0	0	1	0.5	0	0	0	0	0	0
HK593	QUALITY HLTHCR.ASIA	Consumer Good	0	0	0	0	0	0	0	0	1	3	0	0
HK263	CHINA YUNNAN TIN MIN.	Consumer Good	0	0	0	0	0	0	0	0	0	0	0	0
HK1223	SYMPHONY HOLDINGS	Consumer Good	0	0	0	0	0	0	0	0	0	0	0	0
HK2331	LI NING	Consumer Good	1	3	0	0	1	3	0	0	1	3	0	0
HK605	KPI	Consumer Good	0	0	0	0	0	0	0	0	0	0	0	0
HK1212	LIFESTYLE INTL.HDG.	Consumer Good	0	0	0	0	0	0	0	0	1	1	0	0
HK8277	WUMART STORES 'H'	Consumer Good	0	0	0	0	0	0	0	0	1	2	0	0
HK758	JUNEFIELD DEPT.STORE GP.	Consumer Good	0	0	0	0	0	0	0	0	0	0	0	0
HK3368	PARKSON RETAIL GROUP	Consumer Good	0	0	0	0	0	0	0	0	0	0	0	0
HK3308	GOLDEN EAGLE RETAIL GP.	Consumer Good	0	0	0	0	0	0	0	0	0	0	0	0
HK1880	BELLE INTERNATIONAL HDG.	Consumer Good	0	0	0	0	0	0	1	0.5	0	0	1	0.5
HK1088	CHINA SHENHUA EN.CO.'H'	Energy	0	0	0	0	0	0	0	0	1	2	0	0
HK578	DYNAMIC ENERGY HOLDINGS	Energy	0	0	0	0	0	0	0	0	0	0	0	0
HK342	NEWOCEAN ENERGY HDG.	Energy	0	0	0	0	0	0	0	0	0	0	0	0

Stock code	Name	Industry	Social Aspects											
			occurrence	quality	occurrence	quality	occurrence	quality	occurrence	quality	occurrence	quality		
			Employment		Occupational Health and Safety		Training and Education		Diversity and Opportunity		Community involvement		Customer Health and Safety	
HK1393	HIDILI IND.INTL.DEV.	Energy	0	0	0	0	0	0	0	0	1	1	0	0
HK857	PETROCHINA 'H'	Energy	0	0	0	0	0	0	0	0	0	0	0	0
HK386	SINOPEC 'H'	Energy	0	0	0	0	1	2	0	0	0	0	0	0
HK883	CNOOC	Energy	0	0	1	3	0	0	0	0	1	3	0	0
HK91	NEW SMART ENERGY GROUP	Energy	0	0	0	0	0	0	0	0	0	0	0	0
HK1205	CITIC RESOURCES HDG.	Energy	0	0	0	0	0	0	0	0	0	0	0	0
HK2883	CHINA OILFIELD SVS. 'H'	Energy	0	0	1	3	1	2	0	0	1	3	0	0
HK639	FUSHAN INTL.ENERGY GP.	Energy	0	0	0	0	0	0	0	0	0	0	0	0
HK603	CHINA OIL AND GAS GP.	Energy	0	0	0	0	0	0	0	0	0	0	0	0
HK1898	CHINA COAL ENERGY 'H'	Energy	0	0	1	2	1	2	0	0	1	3	1	3
HK135	CNPC HONG KONG	Energy	0	0	0	0	0	0	0	0	1	1	0	0
HK568	SHANDONG MOLONG PTL.MCH. 'H'	Energy	0	0	0	0	0	0	0	0	0	0	0	0
HK839	ANHUI TIANDA OIL PIPE 'H'	Energy	0	0	0	0	0	0	0	0	0	0	0	0
HK934	SINOPEC KANTONS HOLDINGS	Energy	0	0	0	0	0	0	0	0	0	0	0	0
HK3303	JUTAL OFFSHORE OIL SVS.	Energy	0	0	0	0	0	0	0	0	0	0	0	0
HK554	HANS ENERGY	Energy	0	0	0	0	0	0	0	0	0	0	0	0
HK3337	ANTON OILFIELD SVS.GROUP	Energy	0	0	0	0	0	0	0	0	1	1	0	0
HK11	HANG SENG BANK	Financials	0	0	0	0	0	0	0	0	1	3	0	0
HK2388	BOC HONG KONG (HDG.)	Financials	0	0	1	2	1	3	0	0	1	3	0	0
HK349	INDL.&CMLBK.OF.CHIN.AI.	Financials	0	0	0	0	0	0	0	0	1	3	0	0
HK3968	CHINA MERCHANTS BANK 'H'	Financials	0	0	0	0	0	0	0	0	0	0	0	0
HK5	HSBC HOLDINGS	Financials	0	0	1	3	0	0	0	0	0	0	0	0
HK575	REGENT PACIFIC GP.	Financials	0	0	1	2	1	0	0	0	0	0	0	0
HK636	FUBON BANK (HONG KONG)	Financials	0	0	0	0	0	0	0	0	1	3	0	0
HK69	SHANGRI-LA ASIA	Financials	0	0	1	3	0	0	1	2	1	3	0	0
HK1398	INDL.&COML.BK.OF.CHINA 'H'	Financials	0	0	0	0	1	3	0	0	1	3	1	3
HK3988	BANK OF CHINA 'H'	Financials	0	0	0	0	0	0	0	0	1	3	0	0
HK440	DAH SING FINANCIAL HDG.	Financials	0	0	0	0	1	0.5	0	0	1	1	0	0
HK293	CATHAY PACIFIC AIRWAYS	Financials	0	0	0	0	0	0	0	0	1	3	0	0
HK302	WING HANG BANK	Financials	0	0	1	2	0	0	0	0	1	3	0	0
HK2628	CHINA LIFE INSURANCE 'H'	Financials	0	0	0	0	1	2	0	0	1	3	0	0
HK2328	PICC PROPERTY & CLTY.'H'	Financials	0	0	0	0	1	0.5	0	0	1	2	0	0

Stock code	Name	Industry	Social Aspects											
			occurrence	quality	occurrence	quality	occurrence	quality	occurrence	quality	occurrence	quality		
			Employment	Occupational Health and Safety	Training and Education	Diversity and Opportunity	Community involvement	Customer Health and Safety						
HK1049	CELESTIAL ASIA SECS.HDG.	Financials	1	2	0	0	1	2	0	0	0	0	0	0
HK378	CIAM GROUP	Financials	0	0	0	0	0	0	0	0	0	0	0	0
HK428	HARMONY ASSET	Financials	0	0	0	0	0	0	0	0	0	0	0	0
HK626	PUBLIC FINANCIAL HDG.	Financials	0	0	0	0	0	0	0	0	0	0	0	0
HK388	HONG KONG EXS.& CLEAR.	Financials	0	0	0	0	0	0	0	1	2	0	0	0
HK335	UPBEST GROUP	Financials	0	0	0	0	0	0	0	0	0	0	0	0
HK763	ZTE 'H'	Information Technology	0	0	0	0	0	0	0	1	0	0	0	0
HK553	NANJING PANDA ELT.'H'	Information Technology	0	0	0	0	0	0	0	0	0	0	0	0
HK1211	BYD 'H'	Information Technology	0	0	0	0	1	2	0	0	1	3	0	0
HK3335	DBA TELECOM.ASIA HDG.	Information Technology	0	0	0	0	0	0	0	1	1	0	0	0
HK2028	JOLIMARK HOLDINGS	Information Technology	0	0	0	0	0	0	0	0	0	0	0	0
HK630	JACKIN INTL.HDG.	Information Technology	0	0	0	0	0	0	0	0	0	0	0	0
HK85	CHINA ELECTRONICS	Information Technology	0	0	0	0	0	0	0	0	0	0	0	0
HK2018	AAC ACOUSTIC TECHS.HDG.	Information Technology	0	0	0	0	0	0	0	0	0	0	0	0
HK154	BEIJING DEV.(HONG KONG)	Information Technology	0	0	0	0	0	0	0	0	0	0	0	0
HK8045	JIANGSU NANDASOFT 'H'	Information Technology	0	0	0	0	0	0	0	0	0	0	0	0
HK939	CHINA CON.BANK 'H'	Information Technology	0	0	0	0	0	0	0	1	3	0	0	0
HK596	INSPUR INTERNATIONAL	Information Technology	0	0	0	0	0	0	0	0	0	0	0	0
HK536	TRADELINK ELT.COM.	Information Technology	0	0	0	0	0	0	0	0	0	0	0	0
HK700	TENCENT HOLDINGS	Information Technology	0	0	0	0	0	0	0	1	3	0	0	0
HK903	TPV TECHNOLOGY	Information Technology	0	0	0	0	1	0.5	0	0	1	1	0	0
HK2038	FOXCONN INTL.HDG.	Information Technology	0	0	0	0	0	0	0	0	0	0	0	0
HK3336	JU TENG INTL.HDG.	Information Technology	0	0	0	0	0	0	0	0	0	0	0	0
HK430	ORIENTAL EXPLORER HDG.	Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
HK1072	DONGFANG ELECTRIC 'H'	Manufacturing	1	3	1	2	0	0	0	0	0	0	0	0
HK1184	SAS DRAGON HOLDINGS	Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
HK300	SHENJI GROUP KUMATO.'H'	Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
HK31	CHINA AEROS.INTL.HDG.	Manufacturing	0	0	0	0	1	0	0	0	1	2	1	0.5
HK379	PME GROUP	Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
HK517	COSCO INTL.HDG.	Manufacturing	1	3	1	3	1	2	0	0	1	3	0	0
HK521	SHOUGANG CCRD.TECH.HDG.	Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
HK2727	SHANGHAI ELEC.GP.CO.'H'	Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0

Stock code	Name	Industry	Social Aspects									
			occurrence	quality	occurrence	quality	occurrence	quality	occurrence	quality	occurrence	quality
			Employment	Occupational Health and Safety	Training and Education	Diversity and Opportunity	Community involvement	Customer Health and Safety				
HK889	DATRONIX HOLDINGS	Manufacturing	0	0	0	0	0	0	0	0	0	0
HK3355	ADVANCED SEMICON.MNFG. 'H'	Manufacturing	0	0	0	0	0	0	0	1	1	0
HK1033	SINOPEC YIZHENG CHM.FRE. 'H'	Manufacturing	0	0	0	0	0	0	0	0	0	0
HK297	SINFERT HOLDINGS	Manufacturing	0	0	0	0	0	0	0	1	2	0
HK103	SHOUGANG CCRD.CEN.HDG.	Manufacturing	1	3	0	0	1	0.5	0	0	0	0
HK1208	MINMETALS RESOURCES	Manufacturing	0	0	0	0	0	0	0	0	0	0
HK637	LEE KEE HOLDINGS	Manufacturing	0	0	0	0	0	0	0	0	0	0
HK689	EPI HOLDINGS	Manufacturing	0	0	0	0	0	0	0	0	0	0
HK323	MAANSHAN IRON & STL. 'H'	Manufacturing	0	0	0	0	0	0	0	1	1	0
HK2600	ALUMINUM CORP.OF CHINA 'H'	Manufacturing	0	0	0	0	0	0	0	0	0	0
HK2899	ZIJIN MINING GROUP 'H'	Manufacturing	0	0	0	0	1	1	0	0	1	0
HK1060	SHANGHAI ALLIED CEMENT	Properties & Construction	0	0	0	0	0	0	0	0	0	0
HK1800	CHINA COMMS.CON.'H'	Properties & Construction	0	0	0	0	0	0	0	1	1	0
HK390	CHINA RAILWAY GROUP 'H'	Properties & Construction	0	0	0	0	0	0	0	0	0	0
HK123	GUANGZHOU INV.	Properties & Construction	0	0	0	0	0	0	0	1	1	0
HK127	CHINESE ESTATES HDG.	Properties & Construction	0	0	0	0	0	0	0	1	3	0
HK156	LIPPO CHINA RESOURCES	Properties & Construction	0	0	0	0	0	0	0	0	0	0
HK1176	NAM FONG INTL.HDG.	Properties & Construction	0	0	0	0	0	0	0	0	0	0
HK1200	MIDLAND HOLDINGS	Properties & Construction	0	0	0	0	1	2	0	0	1	0
HK173	K WAH INTERNATIONAL HDG.	Properties & Construction	0	0	0	0	1	2	0	0	1	0
HK190	HKC HOLDINGS	Properties & Construction	0	0	0	0	0	0	0	1	1	0
HK2868	BEIJING CAPITAL LAND 'H'	Properties & Construction	0	0	0	0	1	3	0	0	1	0
HK251	SEA HOLDINGS	Properties & Construction	0	0	0	0	0	0	0	1	1	0
HK3900	GREENTOWN CHINA HDG.	Properties & Construction	0	0	0	0	0	0	0	1	1	0
HK2337	SHANGHAI FORTE LAND 'H'	Properties & Construction	0	0	0	0	0	0	0	0	0	0
HK258	TOMSON GROUP	Properties & Construction	0	0	0	0	0	0	0	1	3	0
HK2777	GUANGZHOU R&F PROPS.'H'	Properties & Construction	0	0	0	0	1	2	0	0	1	0
HK28	TIAN AN CHINA INVS.	Properties & Construction	0	0	0	0	1	0.5	0	0	1	0
HK34	KOWLOON DEVELOPMENT	Properties & Construction	0	0	0	0	1	0.5	0	0	1	0
HK369	USI HOLDINGS	Properties & Construction	0	0	0	0	0	0	0	1	1	0
HK59	SKYFAME REALTY (HDG.)	Properties & Construction	0	0	0	0	0	0	0	1	1	0
HK754	HOPSON DEVELOPMENT HDG.	Properties & Construction	0	0	0	0	0	0	0	1	1	0

Stock code	Name	Industry	Social Aspects										
			occurrence	quality	occurrence	quality	occurrence	quality	occurrence	quality	occurrence	quality	
			Employment	Occupational Health and Safety	Training and Education	Diversity and Opportunity	Community involvement	Customer Health and Safety					
HK813	SHIMAO PROPERTY HOLDINGS	Properties & Construction	0	0	0	0	0	0	0	1	3	0	0
HK1	CHEUNG KONG HOLDINGS	Properties & Construction	0	0	0	0	0	0	0	1	3	0	0
HK20	WHEELLOCK AND CO.	Properties & Construction	0	0	0	0	0	0	0	1	1	0	0
HK604	SHENZHEN INVESTMENT	Properties & Construction	0	0	0	0	0	0	0	0	0	0	0
HK1189	WING ON TRAVEL (HDG.)	Service	0	0	0	0	0	0	0	0	0	0	0
HK200	MELCO INTL.DEV.	Service	0	0	0	0	0	0	0	1	2	0	0
HK2006	SHANGHAI JIN JIANG INTL. HTLS.'H'	Service	0	0	0	0	0	0	0	1	2	0	0
HK228	CHINA ENERGY DEV.HDG.	Service	0	0	0	0	0	0	0	0	0	0	0
HK308	CHINA TRVL.INTL.INV.HK.	Service	0	0	0	0	1	0.5	0	1	2	0	0
HK557	CITY E-SOLUTIONS	Service	0	0	0	0	0	0	0	0	0	0	0
HK27	GALAXY ENTERTAINMENT GP.	Service	0	0	0	0	0	0	0	1	2	0	0
HK45	HONGKONG & SHAI.HTLS.	Service	1	2	1	2	1	2	1	2	0	0	0
HK51	HARBOUR CENTRE DEV.	Service	0	0	0	0	0	0	0	0	0	0	0
HK78	REGAL HOTELS INTL.HDG.	Service	0	0	0	0	0	0	0	0	0	0	0
HK1105	SING TAO NEWS	Service	0	0	0	0	0	0	0	0	0	0	0
HK8292	HC INTERNATIONAL	Service	0	0	0	0	0	0	0	0	0	0	0
HK730	SHOUGANG CCRD.GRD.GP.	Service	0	0	0	0	0	0	0	1	1	0	0
HK753	AIR CHINA 'H'	Service	0	0	0	0	0	0	0	1	3	0	0
HK2387	INTEGRATED DS.SVS.GP.	Service	0	0	0	0	1	3	0	1	3	0	0
HK1138	CHINA SHIPPING DEV.'H'	Service	0	0	0	0	0	0	0	0	0	0	0
HK62	TRANSPORT INTL.HDG.	Service	1	3	0	0	1	3	0	1	3	1	3
HK1055	CHINA SOUTHERN AIRL.'H'	Service	0	0	0	0	0	0	0	1	3	0	0
HK66	MTR	Service	0	0	0	0	0	0	0	1	3	0	0
HK1052	GZI TRANSPORT	Service	0	0	0	0	0	0	0	0	0	0	0
HK1098	ROAD KING INFR.	Service	0	0	0	0	0	0	0	0	0	0	0
HK144	CHINA MRCH.HDG.INTL.	Service	0	0	0	0	0	0	0	0	0	0	0
HK2866	CHINA SHIP.CTNR.LIN.'H'	Service	0	0	0	0	0	0	0	0	0	0	0
HK1919	CHINA COSCO HDG.'H'	Service	0	0	0	0	0	0	0	1	3	0	0
HK548	SHENZHEN EXPRESSWAY 'H'	Service	0	0	1	2	1	3	0	1	3	0	0
HK598	SINOTRANS 'H'	Service	0	0	0	0	1	0	0	0	0	0	0
HK610	WAI KEE HOLDINGS	Service	0	0	0	0	0	0	0	0	0	0	0
HK728	CHINA TELECOM 'H'	Service	1	2	0	0	1	2	0	1	2	1	2

Stock code	Name	Industry	Social Aspects											
			occurrence	quality	occurrence	quality	occurrence	quality	occurrence	quality	occurrence	quality		
			Employment		Occupational Health and Safety		Training and Education		Diversity and Opportunity		Community involvement		Customer Health and Safety	
HK762	CHINA UNICOM (HONG KONG)	Service	0	0	0	0	1	2	0	0	1	3	0	0
HK1045	APT SATELLITE HDG.	Service	0	0	0	0	1	0.5	0	0	0	0	0	0
HK941	CHINA MOBILE	Service	0	0	0	0	0	0	0	0	1	2	0	0
HK2332	HUTCHISON TELECOM.INTL.	Service	0	0	0	0	0	0	0	0	1	2	0	0
HK1071	HUADIAN POWER INTL.'H'	Utilities	0	0	0	0	0	0	0	0	0	0	0	0
HK902	HUANENG POWER INTL.'H'	Utilities	0	0	0	0	1	0.5	0	0	1	0.5	0	0
HK991	DATANG INTL.PWR.GNRTN.'H'	Utilities	0	0	0	0	1	3	0	0	1	1	0	0
HK2	CLP HOLDINGS	Utilities	1	3	1	3	1	3	0	0	1	3	0	0
HK3928	ZHENGZHOU GAS 'H'	Utilities	0	0	0	0	0	0	0	0	1	1	0	0
HK3	HONG KONG AND CHINA GAS	Utilities	0	0	1	3	1	3	0	0	1	3	0	0
HK8290	TIANJIN TIANLIAN PUB. UTILS.'H'	Utilities	0	0	0	0	0	0	0	0	0	0	0	0
HK6	HONG KONG ELECTRIC	Utilities	0	0	1	2	1	3	0	0	1	3	0	0
HK2688	XINAO GAS HOLDINGS	Utilities	0	0	0	0	1	2	0	0	0	0	0	0
HK836	CHINA RES.POWER HDG.	Utilities	0	0	0	0	0	0	0	0	1	2	0	0
HK1083	TOWNGAS CHINA	Utilities	0	0	0	0	1	0.5	0	0	1	3	0	0
HK2380	CHINA POWER INTL.DEV.	Utilities	0	0	0	0	0	0	0	0	1	3	0	0
HK3800	GCL-POLY ENERGY HOLDINGS	Utilities	0	0	0	0	0	0	0	0	1	1	0	0
HK1065	TIANJIN CAP.ENV.PROTC. GP.'H'	Utilities	0	0	0	0	0	0	0	0	0	0	0	0
HK8290	TIANJIN TIANLIAN PUB. UTILS.'H'	Utilities	0	0	0	0	0	0	0	0	0	0	0	0
HK622	ENERCHINA HOLDINGS	Utilities	0	0	0	0	0	0	0	0	0	0	0	0

### Appendix 3c – Result of content analysis - SUSR

Stock code	Name	Industry	TOTAL OCCURRENCE	TOTAL QUALITY SCORE	SUSR
HK13	HUTCHISON WHAMPOA	Conglomerates	5	13	2.6
HK267	CITIC PACIFIC	Conglomerates	4	8	2
HK87	SWIRE PACIFIC 'B'	Conglomerates	5	12	2.4
HK1038	CHEUNG KONG INFR.HDG.	Conglomerates	0	0	0
HK291	CHINA RES.ENTREP.	Conglomerates	7	17	2.428571
HK256	CHINA HAIDIAN HDG.	Conglomerates	0	0	0
HK36	FAR EAST HOLDINGS INTL.	Conglomerates	0	0	0
HK392	BEIJING ENTERPRISES HDG.	Conglomerates	1	0.5	0.5
HK4	WHARF HOLDINGS	Conglomerates	5	13	2.6
HK625	RREEF CHINA COML.TRUST	Conglomerates	0	0	0
HK2357	AVICHINA IND.& TECH.'H'	Consumer Good	1	2	2
HK2333	GREAT WALL MOTOR CO.'H'	Consumer Good	1	2	2
HK1188	FAR EAST GLDN.RES.GP.	Consumer Good	0	0	0
HK359	CHINA HAISHENG JUICE HDG.	Consumer Good	1	0.5	0.5
HK1093	CHINA PHARMACEUTICAL	Consumer Good	0	0	0
HK157	NATURAL BEAUTY BIOTECH.	Consumer Good	1	1	1
HK1177	SINO BIOPHM.	Consumer Good	0	0	0
HK8069	TONG REN TANG TECHS.'H'	Consumer Good	1	0.5	0.5
HK593	QUALITY HLTHCR.ASIA	Consumer Good	1	3	3
HK263	CHINA YUNNAN TIN MIN.	Consumer Good	0	0	0
HK1223	SYMPHONY HOLDINGS	Consumer Good	0	0	0
HK2331	LI NING	Consumer Good	3	9	3
HK605	KPI	Consumer Good	0	0	0
HK1212	LIFESTYLE INTL.HDG.	Consumer Good	1	1	1
HK8277	WUMART STORES 'H'	Consumer Good	1	2	2
HK758	JUNEFIELD DEPT.STORE GP.	Consumer Good	0	0	0
HK3368	PARKSON RETAIL GROUP	Consumer Good	0	0	0
HK3308	GOLDEN EAGLE RETAIL GP.	Consumer Good	0	0	0
HK1880	BELLE INTERNATIONAL HDG.	Consumer Good	3	1.5	0.5
HK1088	CHINA SHENHUA EN.CO.'H'	Energy	2	4	2
HK578	DYNAMIC ENERGY HOLDINGS	Energy	0	0	0
HK342	NEWOCEAN ENERGY HDG.	Energy	0	0	0
HK1393	HIDILI IND.INTL.DEV.	Energy	1	1	1
HK857	PETROCHINA 'H'	Energy	0	0	0
HK386	SINOPEC 'H'	Energy	5	14	2.8
HK883	CNOOC	Energy	3	8	2.666667
HK91	NEW SMART ENERGY GROUP	Energy	0	0	0
HK1205	CITIC RESOURCES HDG.	Energy	0	0	0
HK2883	CHINA OILFIELD SVS.'H'	Energy	5	12	2.4
HK639	FUSHAN INTL.ENERGY GP.	Energy	1	0.5	0.5
HK603	CHINA OIL AND GAS GP.	Energy	0	0	0
HK1898	CHINA COAL ENERGY 'H'	Energy	7	17	2.428571
HK135	CNPC HONG KONG	Energy	1	1	1
HK568	SHANDONG MOLONG PTL.MCH.'H'	Energy	0	0	0
HK839	ANHUI TIANDA OIL PIPE 'H'	Energy	0	0	0
HK934	SINOPEC KANTONS HOLDINGS	Energy	0	0	0
HK3303	JUTAL OFFSHORE OIL SVS.	Energy	0	0	0
HK554	HANS ENERGY	Energy	0	0	0
HK3337	ANTON OILFIELD SVS.GROUP	Energy	1	1	1
HK11	HANG SENG BANK	Financials	5	14	2.8
HK2388	BOC HONG KONG (HDG.)	Financials	7	16	2.285714
HK349	INDL.& CMLBK.OF CHIN.AI.	Financials	1	3	3
HK3968	CHINA MERCHANTS BANK 'H'	Financials	0	0	0
HK5	HSBC HOLDINGS	Financials	4	11	2.75
HK575	REGENT PACIFIC GP.	Financials	2	2	1
HK636	FUBON BANK (HONG KONG)	Financials	1	3	3
HK69	SHANGRI-LA ASIA	Financials	8	17.5	2.1875
HK1398	INDL.& COML.BK.OF CHINA 'H'	Financials	6	16	2.666667
HK3988	BANK OF CHINA 'H'	Financials	1	3	3
HK440	DAH SING FINANCIAL HDG.	Financials	2	1.5	0.75
HK293	CATHAY PACIFIC AIRWAYS	Financials	3	9	3
HK302	WING HANG BANK	Financials	3	8	2.666667
HK2628	CHINA LIFE INSURANCE 'H'	Financials	2	5	2.5
HK2328	PICC PROPERTY & CLTY.'H'	Financials	2	2.5	1.25
HK1049	CELESTIAL ASIA SECS.HDG.	Financials	2	4	2

Stock code	Name	Industry	TOTAL OCCURRENCE	TOTAL QUALITY SCORE	SUSR
HK378	CIAM GROUP	Financials	0	0	0
HK428	HARMONY ASSET	Financials	0	0	0
HK626	PUBLIC FINANCIAL HDG.	Financials	0	0	0
HK388	HONG KONG EXS. & CLEAR.	Financials	1	2	2
HK335	UPBEST GROUP	Financials	0	0	0
HK763	ZTE 'H'	Information Technology	4	5	1.25
HK553	NANJING PANDA ELT. 'H'	Information Technology	0	0	0
HK1211	BYD 'H'	Information Technology	3	7	2.333333
HK3335	DBA TELECM.ASIA HDG.	Information Technology	1	1	1
HK2028	JOLIMARK HOLDINGS	Information Technology	0	0	0
HK630	JACKIN INTL.HDG.	Information Technology	0	0	0
HK85	CHINA ELECTRONICS	Information Technology	0	0	0
HK2018	AAC ACOUSTIC TECHS.HDG.	Information Technology	0	0	0
HK154	BEIJING DEV.(HONG KONG)	Information Technology	0	0	0
HK8045	JIANGSU NANDASOFT 'H'	Information Technology	0	0	0
HK939	CHINA CON.BANK 'H'	Information Technology	2	5	2.5
HK596	INSPUR INTERNATIONAL	Information Technology	0	0	0
HK536	TRADELINK ELT.COM.	Information Technology	0	0	0
HK700	TENCENT HOLDINGS	Information Technology	1	3	3
HK903	TPV TECHNOLOGY	Information Technology	2	1.5	0.75
HK2038	FOXCONN INTL.HDG.	Information Technology	0	0	0
HK3336	JU TENG INTL.HDG.	Information Technology	0	0	0
HK430	ORIENTAL EXPLORER HDG.	Manufacturing	0	0	0
HK1072	DONGFANG ELECTRIC 'H'	Manufacturing	3	5	1.666667
HK1184	SAS DRAGON HOLDINGS	Manufacturing	0	0	0
HK300	SHENJI GROUP KUMATO 'H'	Manufacturing	0	0	0
HK31	CHINA AEROS.INTL.HDG.	Manufacturing	4	2.5	0.625
HK379	PME GROUP	Manufacturing	0	0	0
HK517	COSCO INTL.HDG.	Manufacturing	6	16	2.666667
HK521	SHOUGANG CCRD.TECH.HDG.	Manufacturing	0	0	0
HK2727	SHANGHAI ELEC.GP.CO.'H'	Manufacturing	0	0	0
HK889	DATRONIX HOLDINGS	Manufacturing	0	0	0
HK3355	ADVANCED SEMICON.MNFG.'H'	Manufacturing	1	1	1
HK1033	SINOPEC YIZHENG CHM.FRE.'H'	Manufacturing	1	1	1
HK297	SINOFERT HOLDINGS	Manufacturing	5	12	2.4
HK103	SHOUGANG CCRD.CEN.HDG.	Manufacturing	2	3.5	1.75
HK1208	MINMETALS RESOURCES	Manufacturing	0	0	0
HK637	LEE KEE HOLDINGS	Manufacturing	0	0	0
HK689	EPI HOLDINGS	Manufacturing	0	0	0
HK323	MAANSHAN IRON & STL.'H'	Manufacturing	5	10	2
HK2600	ALUMINUM CORP.OF CHINA 'H'	Manufacturing	0	0	0
HK2899	ZIJIN MINING GROUP 'H'	Manufacturing	4	4	1
HK1060	SHANGHAI ALLIED CEMENT	Properties & Construction	0	0	0
HK1800	CHINA COMMS.CON.'H'	Properties & Construction	1	1	1
HK390	CHINA RAILWAY GROUP 'H'	Properties & Construction	0	0	0
HK123	GUANGZHOU INV.	Properties & Construction	1	1	1
HK127	CHINESE ESTATES HDG.	Properties & Construction	2	3.5	1.75
HK156	LIPPO CHINA RESOURCES	Properties & Construction	0	0	0
HK1176	NAM FONG INTL.HDG.	Properties & Construction	0	0	0
HK1200	MIDLAND HOLDINGS	Properties & Construction	3	6	2
HK173	K WAH INTERNATIONAL HDG.	Properties & Construction	2	4	2
HK190	HKC HOLDINGS	Properties & Construction	1	1	1
HK2868	BEIJING CAPITAL LAND 'H'	Properties & Construction	2	6	3
HK251	SEA HOLDINGS	Properties & Construction	1	1	1
HK3900	GREENTOWN CHINA HDG.	Properties & Construction	1	1	1
HK2337	SHANGHAI FORTE LAND 'H'	Properties & Construction	0	0	0
HK258	TOMSON GROUP	Properties & Construction	1	3	3
HK2777	GUANGZHOU R&F PROPS 'H'	Properties & Construction	2	5	2.5
HK28	TIAN AN CHINA INVS.	Properties & Construction	2	1.5	0.75
HK34	KOWLOON DEVELOPMENT	Properties & Construction	2	1.5	0.75
HK369	USI HOLDINGS	Properties & Construction	1	1	1
HK59	SKYFAME REALTY (HDG.)	Properties & Construction	1	1	1
HK754	HOPSON DEVELOPMENT HDG.	Properties & Construction	1	1	1
HK813	SHIMAO PROPERTY HOLDINGS	Properties & Construction	1	3	3
HK1	CHEUNG KONG HOLDINGS	Properties & Construction	1	3	3

Stock code	Name	Industry	TOTAL OCCURRENCE	TOTAL QUALITY SCORE	SUSR
HK20	WHEELOCK AND CO.	Properties & Construction	1	1	1
HK604	SHENZHEN INVESTMENT	Properties & Construction	0	0	0
HK1189	WING ON TRAVEL (HDG.)	Service	0	0	0
HK200	MELCO INTL.DEV.	Service	1	2	2
HK2006	SHANGHAI JIN JIANG INTL. HTLS.'H'	Service	2	4	2
HK228	CHINA ENERGY DEV.HDG.	Service	0	0	0
HK308	CHINA TRVL.INTL.INV.HK.	Service	2	2.5	1.25
HK557	CITY E-SOLUTIONS	Service	0	0	0
HK27	GALAXY ENTERTAINMENT GP.	Service	2	2.5	1.25
HK45	HONGKONG & SHAI.HTLS.	Service	8	17	2.125
HK51	HARBOUR CENTRE DEV.	Service	0	0	0
HK78	REGAL HOTELS INTL.HDG.	Service	0	0	0
HK1105	SING TAO NEWS	Service	0	0	0
HK8292	HC INTERNATIONAL	Service	0	0	0
HK730	SHOUGANG CCRD.GRD.GP.	Service	1	1	1
HK753	AIR CHINA 'H'	Service	1	3	3
HK2387	INTEGRATED DS.SVS.GP.	Service	5	9	1.8
HK1138	CHINA SHIPPING DEV.'H'	Service	0	0	0
HK62	TRANSPORT INTL.HDG.	Service	7	21	3
HK1055	CHINA SOUTHERN AIRL.'H'	Service	3	7	2.333333
HK66	MTR	Service	2	5	2.5
HK1052	GZI TRANSPORT	Service	0	0	0
HK1098	ROAD KING INFR.	Service	0	0	0
HK144	CHINA MRCH.HDG.INTL.	Service	1	0.5	0.5
HK2866	CHINA SHIP.CTNR.LIN.'H'	Service	1	0.5	0.5
HK1919	CHINA COSCO HDG.'H'	Service	3	8	2.666667
HK548	SHENZHEN EXPRESSWAY 'H'	Service	5	11	2.2
HK598	SINOTRANS 'H'	Service	2	1	0.5
HK610	WAI KEE HOLDINGS	Service	0	0	0
HK728	CHINA TELECOM 'H'	Service	6	12	2
HK762	CHINA UNICOM (HONG KONG)	Service	2	5	2.5
HK1045	APT SATELLITE HDG.	Service	1	0.5	0.5
HK941	CHINA MOBILE	Service	2	5	2.5
HK2332	HUTCHISON TELECOM.INTL.	Service	2	2.5	1.25
HK1071	HUADIAN POWER INTL.'H'	Utilities	2	5	2.5
HK902	HUANENG POWER INTL.'H'	Utilities	4	3.5	0.875
HK991	DATANG INTL.PWR.GNRTN.'H'	Utilities	4	8	2
HK2	CLP HOLDINGS	Utilities	6	18	3
HK3928	ZHENGZHOU GAS 'H'	Utilities	1	1	1
HK3	HONG KONG AND CHINA GAS	Utilities	5	14	2.8
HK8290	TIANJIN TIANLIAN PUB. UTILS.'H'	Utilities	0	0	0
HK6	HONG KONG ELECTRIC	Utilities	6	16	2.666667
HK2688	XINAO GAS HOLDINGS	Utilities	3	7	2.333333
HK836	CHINA RES.POWER HDG.	Utilities	2	4	2
HK1083	TOWNGAS CHINA	Utilities	2	3.5	1.75
HK2380	CHINA POWER INTL.DEV.	Utilities	4	12	3
HK3800	GCL-POLY ENERGY HOLDINGS	Utilities	3	6	2
HK1065	TIANJIN CAP.ENV.PROTC. GP.'H'	Utilities	0	0	0
HK8290	TIANJIN TIANLIAN PUB. UTILS.'H'	Utilities	0	0	0
HK622	ENERCHINA HOLDINGS	Utilities	0	0	0

## Appendix 4 – SPSS result

### Regression

#### Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	Market to Book Value, total asset (in BILLION), Debt to equity ratio, ROA(a)		Enter

a All requested variables entered.

b Dependent Variable: SUSR

#### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.334(a)	.112	.091	1.0639

a Predictors: (Constant), Market to Book Value, total asset (in BILLION), Debt to equity ratio, ROA

#### ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	24.888	4	6.222	5.497	.000(a)
	Residual	198.085	175	1.132		
	Total	222.974	179			

a Predictors: (Constant), Market to Book Value, total asset (in BILLION), Debt to equity ratio, ROA

b Dependent Variable: SUSR

#### Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.786	.116		6.798	.000
	total asset (in BILLION)	.000	.000	.181	2.453	.015
	ROA	.558	.502	.083	1.111	.268
	Debt to equity ratio	.207	.084	.184	2.470	.014
	Market to Book Value	.037	.023	.121	1.613	.109

a Dependent Variable: SUSR

## Descriptives

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Occurrence	180	0	8	1.62	1.978
SUSR	180	.0	3.0	1.109	1.1161
total asset (in BILLION)	180	.19	19533.87	349.7994	1874.55166
ROA	180	-.61	.65	.0500	.16684
Debt to equity ratio	180	.00	7.77	.7159	.98996
Market to Book Value	180	.42	32.45	2.9403	3.63887
Valid N (listwise)	180				

## Descriptives

Descriptive Statistics(a)

INDUSTRY		N	Minimum	Maximum	Mean	Std. Deviation
Conglomerates	Occurrence	10	0	7	2.70	2.751
	SUSR	10	.0	2.6	1.253	1.2352
	total asset (in BILLION)	10	.36	666.84	134.2871	200.02852
	ROA	10	-.18	.19	.0246	.10720
	Debt to equity ratio	10	.08	1.15	.4552	.36963
	Market to Book Value	10	.74	3.18	1.4250	.74430
	Valid N (listwise)	10				
Consumer Good	Occurrence	19	0	3	.74	.933
	SUSR	19	.0	3.0	.816	1.0569
	total asset (in BILLION)	19	.25	25.42	6.2805	6.88559
	ROA	19	-.16	.65	.1702	.17554
	Debt to equity ratio	19	.00	2.82	.4700	.73184
	Market to Book Value	19	1.00	13.97	4.1211	3.97538
	Valid N (listwise)	19				
Energy	Occurrence	20	0	7	1.30	2.080
	SUSR	20	.0	2.8	.790	1.0609
	total asset (in	20	.78	1355.89	151.00	346.87868

	BILLION)				77	
	ROA	20	.05	.37	.1427	.09357
	Debt to equity ratio	20	.00	3.06	.6628	.80958
	Market to Book					
	Value	20	.42	5.53	2.7110	1.56552
	Valid N (listwise)	20				
Financials	Occurrence	21	0	8	2.43	2.357
	SUSR	21	.0	3.0	1.755	1.1900
	total asset (in				2110.4	
	BILLION)	21	.19	19533.87	856	4895.14308
	ROA	21	-.51	.65	.0140	.22375
	Debt to equity ratio	21	.00	4.05	1.0237	1.03815
	Market to Book					
	Value	21	.95	32.45	3.9971	6.66881
	Valid N (listwise)	21				
Information	Occurrence					
Technology		17	0	4	.76	1.251
	SUSR	17	.0	3.0	.637	1.0282
	total asset (in				515.92	
	BILLION)	17	.30	8573.27	11	2076.40867
	ROA	17	-.41	.44	.0631	.22176
	Debt to equity ratio	17	.00	1.72	.5172	.56187
	Market to Book					
	Value	17	.70	14.78	3.6647	4.11340
	Valid N (listwise)	17				
Manufacturing	Occurrence	20	0	6	1.60	2.186
	SUSR	20	.0	2.7	.705	.9219
	total asset (in				24.463	
	BILLION)	20	.37	153.15	9	41.00672
	ROA	20	-.35	.26	.0086	.15283
	Debt to equity ratio	20	.00	1.85	.4040	.51372
	Market to Book					
	Value	20	.69	24.57	3.3570	5.37881
	Valid N (listwise)	20				
Properties &	Occurrence					
Construction		25	0	3	1.08	.812
	SUSR	25	.0	3.0	1.230	1.0331
	total asset (in					
	BILLION)	25	.47	286.63	61.178	88.72893

	BILLION)				4	
	ROA	25	-.15	.23	.0245	.06990
	Debt to equity ratio	25	.00	1.96	.7751	.57053
	Market to Book					
	Value	25	.50	6.81	2.2532	1.91375
	Valid N (listwise)	25				
Service	Occurrence	32	0	8	1.84	2.172
	SUSR	32	.0	3.0	1.168	1.0915
	total asset (in					
	BILLION)	32	.35	740.34	78.211	161.83060
	ROA	32	-.61	.26	-.0176	.18417
	Debt to equity ratio	32	.00	7.77	.7186	1.43427
	Market to Book					
	Value	32	.42	7.17	2.3891	1.83165
	Valid N (listwise)	32				
Utilities	Occurrence	16	0	6	2.63	2.094
	SUSR	16	.0	3.0	1.620	1.1392
	total asset (in					
	BILLION)	16	.76	188.11	54.323	63.75208
	ROA	16	-.07	.20	.0671	.06967
	Debt to equity ratio	16	.05	5.22	1.3358	1.55280
	Market to Book					
	Value	16	.50	4.72	2.2700	1.07505
	Valid N (listwise)	16				

a No statistics are computed for one or more split files because there are no valid cases.