

Dimensions of Corporate Social Responsibility and Market Performance: Evidence from the Indonesia Stock Exchange

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Abstract

This study aims to examine the relationship between certain dimensions of Corporate Social Responsibility (CSR) with market performance, measured by Tobin's Q, on companies within various industries in Indonesia. This study disaggregates CSR into 7 dimensions: environment, energy, occupational safety and health, employee, product, community, and general. Samples consisted of 385 companies listed on the Indonesia Stock Exchange (IDX) during 2007-2014. OLS analysis shows that CSR contributes greatly to the formation of market performance of consumer goods, agriculture, and miscellaneous industries. The dimensions of CSR contribute differently to the formation of Q ratios in different industries. We also found that there are differences in the speed of effect of several dimensions of CSR on the formation of market performance; some CSR dimensions give immediate effect while others are lagged.

Keywords Corporate social responsibilities; Industry type; Market performance; Indonesia.

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1. Introduction

The implementation of CSR activities in Indonesia has only been formally regulated in the Law of the Republic of Indonesia Number 40 of 2007 concerning Limited Liability Companies. The law states that companies are required to include reports on the implementation of social and environmental responsibilities in the annual report. Article 74 paragraph 1 of the Limited Liability Companies law also states that a company that carries out its business activities in the field and/or related to natural resources shall carry out its social and environmental responsibilities; while Article 74 paragraph 3 provides for sanction if the company does not perform its obligations as referred to in paragraph 1. Since the enactment of the law, the implementation of CSR on business activities in Indonesia has begun to increase due to the CSR that was once voluntary become mandatory. Disclosure of CSR activities in the annual report is also conducted with the aim to attract investors and maximize the market price of the company's stock, in accordance with the signaling theory.

Signaling theory suggests that a good quality company will deliberately signal its quality to the market, thus the market is expected to differentiate good and bad quality companies. The need to send these signals provides motivation for companies to disclose CSR through annual reports. This is to prove that the company is better than companies that do not disclose CSR. Thus, signaling theory emphasizes that firms will tend to disclose more complete information to obtain a better reputation, which will eventually attract investors and increase the company's stock market price.

Some studies that have been done in general show there is a relationship between the implementation of CSR with the company's performance. Chen et al. (2015) show that some CSR indicators have a positive effect on the profitability of the company. This is because the implementation of CSR will enhance the company's reputation to its stakeholders. Tang et al. (2012) state that CSR relationship with financial performance increases when CSR activity is started from its implementation on the internal company. Starting CSR from the internal company can increase the likelihood of successfully handling external CSR activities and improving financial performance at the same time. Weber et al. (2008) state that CSR activity is a sustainability driver that positively affects the financial performance of the firm. Improving financial performance will have a positive impact on market performance. This will lead to a positive relationship between CSR implementation and market performance (Garcia-Castro et al., 2010; Rodgers et al., 2013).

Griffin & Mahon (1997) states that every industry has its own uniqueness that lies in the internal capabilities and external pressures that exist only in the industry. This uniqueness brings out distinctive social responsibilities for each different type of industry. Griffin & Mahon (1997) argue that each company will focus on different CSR dimensions according to the type of industry. The

statement creates a need to find out exactly how CSR influences the market performance of companies based on industry type since industry differences should affect the different dimensions of CSR performed by the firm.

This study aims to analyze the relationship between various dimensions of CSR and market performance of different industry groups in the Indonesian capital market.

2. Theoretical Background and Hypothesis

2.1. Definition and measurement of corporate social responsibility

The World Business Council for Sustainable Development (WBCSD) in its article "Making Good Business Sense" defines CSR as a business commitment to continuously act ethically, to operate legally and contribute to economic improvement, along with improving the quality of life of employees and their families as well as enhancing the quality of local communities and the wider community. Implementation of CSR activities is the responsibility of a company's organization on the impact of its decisions and activities to the community and the environment (Sudana, 2011). Implementation of CSR will make the company's reputation better. Porter and Kramer (2006) stated that in addition to improving reputation, CSR is also driven by moral obligation, license to operate and sustainability. Achieving sustainability as a result of CSR means that the company shows high social, environmental, and economic performance. Outcomes CSR company performance in turns is expected to have a positive impact on its financial performance.

The measurement of the CSR disclosure index uses the content analysis method of the company's annual report, which classifies texts with the same characteristics in different groups or categories based on the criteria developed by Hackston and Milne (1996) and has been adapted to Indonesian conditions by Sembiring (2005). Disclosure of CSR activities in the company's annual report stated in the corporate social responsibility index (CSRI) will be assessed by comparing the number of disclosures made by the company, there are 78 items of CSR disclosure categorized in the following seven dimensions:

1. Environment (13 items). The environment dimension includes the policies and actions of the company related to: the prevention and control of pollution; the prevention or repair of environmental damage due to operations; the conservation of natural resources; waste treatment; environmental protection; and also the contribution in art that aims to beautify the environment and in the restoration of historical buildings.

2. Energy (7 items). This dimension includes policies and activities related to more effective and efficient use of energy, as well as the use of used materials as an energy source.
3. Occupational safety and health (8 items). This dimension is related to insurance policies and activities occupational safety and health for employees, including: reducing pollution, irritants, or risk in the work environment; promoting labor safety and physical or mental health; complying with health and safety standard regulations; and providing health services for the workforce.
4. Employee (29 items). The employee dimension related to the policies and activities related to the utilization and development of women and disabled workers; home ownership and recreational facilities; and other policies related to improving the working conditions in general. This dimension also includes reports on company relations with unions and actions that have been taken to address labor issues.
5. Product (10 items). The product dimension is related to policies and actions aimed at product safety and liability, as well as disclosures about efforts on product development and improvement.
6. Community (9 items). This dimension is related to the company's contribution to the community in forms of: donations to support community activities, education and the arts; contribution to public health; scholarships and support for the local education system; and concern for local business development.
7. General (2 items). This dimension is related to disclosure about the objectives of the company's social responsibility policy and other matters related to CSR.

Index measurement begins with the determination of CSR activity item scores, i.e. 1 if CSR activity items are disclosed, value 0 if not. Scores of corporate CSR disclosures in this study were measured using the following general formula:

$$CSRI_i = \frac{\sum_1^N X_i}{N} \dots\dots\dots (1)$$

where:

- $CSRI_i$ = Corporate social responsibility index of company i
- X_{ij} = CSR item on company i, 1 if item is disclosed and 0 if not
- N = Number of CSR items

2.2. Definition and measurement of market performance

Market performance is a company's achievement as measured by the indicator of its stocks market price. In this study market performance is measured by Tobin's Q ratio. In this study, the Q ratio is used with the consideration that the ratio not only measures the historical performance of the company but also shows market appreciation towards the company. This leads to Q ratio to be related to various aspects of the company's development in the future (Suaia and Castro Junior, 2002). The formula to measure Tobin's Q used in this study is:

$$\text{Tobin's Q} = \frac{\text{Market Value of outstanding shares} + \text{Total Debt}}{\text{Total Asset}} \dots\dots\dots (2)$$

A firm with good market performance generally has Tobin's Q ratio above one which means that its stock market value is greater than the book value. The higher the Q ratio means the more successful the company creates value for its shareholders. This will encourage new investment. The magnitude of stock's market price is influenced by various factors, including CSR activities conducted and disclosed in the company's annual report, as well as other internal factors of the company, such as financial leverage, firm size, and age of the company.

2.3. Relationship between corporate social responsibility and market performance

The signaling theory states that a good quality company will deliberately deliver its quality to the market. Through quality disclosure, it is expected that the market can differentiate companies of good and bad quality. Quality disclosure can be done through a variety of ways, one of which is by reporting CSR activities that have been done in the annual report. CSR disclosure is a way to prove that a company is better than a company that does not do. Thus, signaling theory emphasizes that firms will tend to present more complete information to gain a better reputation. Disclosure of CSR activities thus expected to attract investors to invest and increase the market price of the company's stocks.

The results of previous research have shown different conclusions. Research by Miroshnychenko et al. (2017) and Przychodzen and Przychodzen (2015) show a positive relationship between environmental performance and financial performance. A study by Chen et al. (2015) shows a positive relationship of social performance with return on equity. The results of Feng et al. (2015) shows that CSR implementation can reduce the cost of equity capital in North America and Europe but not in Asian countries. Although there are several studies that show a negative relationship between CSR and financial performance, more research has shown otherwise (Orlitzky et al.,

2003).

Disclosure of CSR makes investors feel safe and confident to invest in the company. The information contained in the CSR disclosure can be taken into consideration by the investor to make a decision. In essence, CSR disclosure reduces uncertainty for investors. Investors can use CSR disclosure as a medium to get information about the relationship between the company and its stakeholders. If the relationship between the company and stakeholders runs harmoniously, then the investor will be willing to pay for the company's stock, due to the sustainability and acceptability of the company. If a company has high sustainability and acceptability, then the company can be classified as a low-risk company and if otherwise the company is classified as high-risk.

Research by Inoue & Lee (2011) examines the influence of CSR on financial performance in the tourism industry in the United States. This study uses five dimensions of CSR disclosure: employee relations, product quality, community, environmental issues, and diversity issues. In line with previous studies, the results showed that CSR gives a positive effect on financial performance. The results also show that there are differences in the effect of CSR dimensions on financial performance on different business in the tourism industry. It is therefore interesting to ask whether there are differences in the effect of CSR dimensions on market performance on different industry groups. Therefore, the research hypothesis can be formulated as:

H₁: There are differences in the relationships between CSR dimensions and market performance of companies in various industries.

3. Methodology

3.1. Data

The population is all companies listed in the Indonesia Stock Exchange (IDX) during period 2007-2014. The sample used in this study was determined by purposive sampling method, with criteria:

1. Companies listed on the Indonesia Stock Exchange (IDX) in the period 2007-2014.
2. The Company published annual reports explaining the performance of its CSR activities.
3. Each industry group has a minimum of 10 members.

Based on these criteria, a sample size of 385 companies was obtained, covering industries: agriculture and plantations (14), mining (23), Basic and chemical (39), miscellaneous (29), consumer goods (23), property (54), transportation (31), finance (75), and trade and services (97).

3.2. Measurement

Corporate social responsibility is the disclosure of CSR activities related to the dimensions of environmental, energy, occupational safety and health, employee, products, community, and general, which has conducted by the company as a form of corporate responsibility to its stakeholders. In each dimension, corporate social responsibility is measured using dummy variables, i.e. each CSR item in this study is assigned a value of 1 if disclosed and 0 if not. The items in each dimension are described in the appendix of this article. The CSR disclosure score on each dimension is calculated by the formula:

$$CSR_d = \frac{\sum_{c=1}^N X_{cd}}{N_d} \dots\dots\dots (3)$$

where:

- CSR_d = Corporate social responsibility index of CSR on dimensions d .
- X_{cd} = Items of CSR dimension d ; worth 1 if item was disclosed and 0 if not
- N_d = Number of items of CSR on dimension d

Market performance is a company's performance measured by the indicators of the market price of stocks. Market performance is measured using Tobin's Q, by the formula (2). Research control variables include financial leverage (LEV) which is the ratio of total liabilities to total assets; company size (SZE) as measured by the natural logarithm of total company assets at IPO; and the age of the issuer when conducting the IPO (AGE).

3.3. Model

In examining the relationship between the dimensions of CSR and market performance this study uses OLS, with the following model.

$$Tobin Q_{it+1j} = \beta_0 + \beta_1 CSRENV_{itj} + \beta_2 CSRENR_{itj} + \beta_3 CSRSF_{itj} + \beta_4 CSREMP_{itj} + \beta_5 CSRPRO_{itj} + \beta_6 CSRCOM_{itj} + \beta_7 CSRGEN_{itj} + \beta_8 LEV_{itj} + \beta_9 SZE_{itj} + \beta_{10} AGE_{itj} + \varepsilon_{it} \dots\dots\dots (4)$$

where:

| | | |
|---------------------|---|--|
| $Tobin\ Q_{it+1j}$ | = | Tobin's Q of company i in industry j in year t + 1 |
| $CSRENV_{itj}$ | = | CSR index on the environment dimension of company i in industry j in year t |
| $CSRENR_{itj}$ | = | CSR index on the energy dimension of company i in industry j in year t |
| $CSRSAF_{itj}$ | = | CSR index on the occupational safety and health dimension of company i in industry j in year t |
| $CSREMP_{itj}$ | = | CSR index on the employee dimension of company i in industry j in year t |
| $CSRPRO_{itj}$ | = | CSR index on the product dimension of company i in industry j in year t |
| $CSRCOM_{itj}$ | = | CSR index on the community dimension of company i in industry j in year t |
| $CSRGEN_{itj}$ | = | CSR index on the general dimension of company i in industry j in year t |
| LEV_{itj} | = | Leverage of company i in industry j at year t |
| SZE_{itj} | = | Size of company i in industry j at year t |
| AGE_{itj} | = | Age of company i in industry j at year t |
| $\varepsilon_{i,t}$ | = | Error |

4. Results and Discussion

4.1. Findings

Figure 1 shows that the agricultural industry group exhibits the highest CSR performance in all dimensions. This is due to the type of this industry that is directly related to large-scale farming, plantation, and forestry. The agricultural industry is faced with all the challenges contained in the CSR dimension and must be able to answer the challenge as it is closely related to the viability of their business. On the other hand, the financial industry shows the lowest CSR performance in most dimensions. This is because the various dimensions of CSR can be perceived as not affecting the sustainability of the financial business, such as environment, energy, occupational health and safety, and products. Nevertheless, considerable attention is given by the financial industry to employee relations and the Community.

Overall, the highest performing CSR dimension is the general intention (which can easily be interpreted as a statement of company commitment to the implementation of CSR activities). Unfortunately, the intention is not fully applied to the various dimensions of CSR. Another high-performance CSR dimension is Community and the environment. This is due to several things. First, the Indonesian government is systematically encourages companies to engage in community-related activities through programs such as environmental and social management assessments (known as PROPER) and the regulation on the obligation of state-owned enterprises to set aside a portion of net income for environmental CSR activities and Community (known as

Partnership and Community Development Program). Second, as stated by Porter and Kramer (2006), CSR is also conducted so that the company gets the license to operate from the community and can enhance its reputation. The reason for the license to operate can also justify the high performance of environment and occupational safety and health dimensions in agriculture and mining industries (though for different reasons as will be explained later).

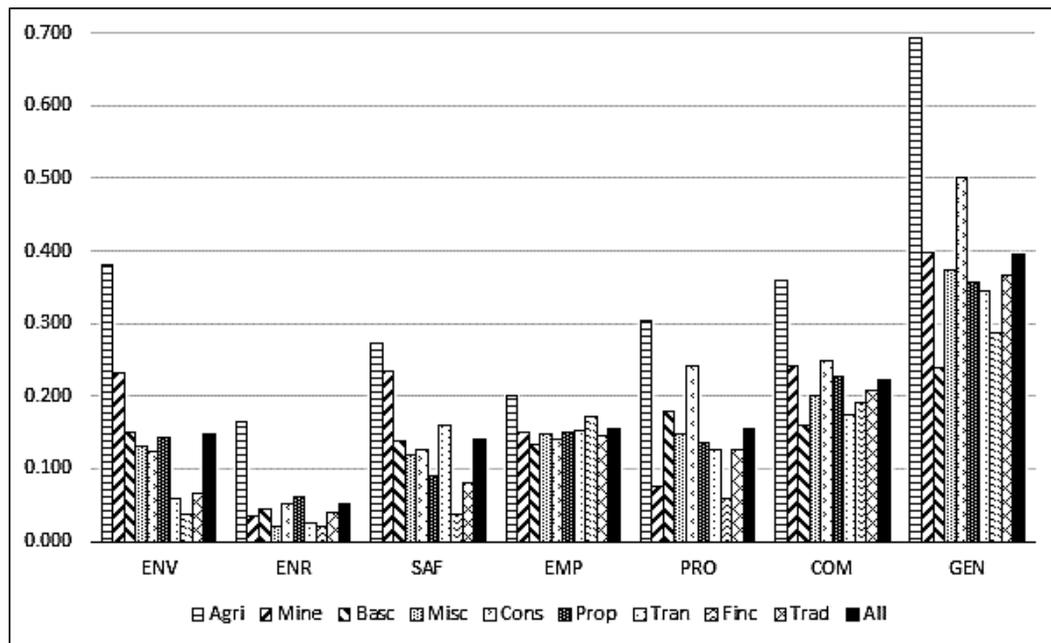


Figure 1 Performance of CSR dimensions in various industries in the Indonesia Stock Exchange

Table 1 shows the mean, standard deviation, and correlation coefficient of all research variables. The correlation table shows that, in general, market performance is only positively correlated with the product and general dimensions of CSR. Table 1 also shows a positive correlation of firm's size and age with all dimensions of CSR. This indicates that with the increasing size and age of the company, so does awareness of the importance of all CSR dimensions for the sustainability of the company. Companies are becoming increasingly aware that their survival is largely determined by acceptance by stakeholders. Acceptance by stakeholders also influences and is influenced by the company's reputation. Therefore it can be stated that the larger and the older the company, the higher the awareness to implement CSR in order to improve the reputation and acceptance of stakeholders, resulting in the achievement of sustainability.

Table 1 Means, standard deviations, and correlations

| | TOB | LEV | SZE | AGE | ENV | ENR | SAF | EMP | PRO | COM | GEN |
|----------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| Mean | 1.577 | 0.590 | 28.129 | 29.072 | 0.108 | 0.042 | 0.106 | 0.152 | 0.132 | 0.209 | 0.358 |
| Std. Dev | 1.733 | 0.598 | 1.916 | 14.792 | 0.148 | 0.113 | 0.166 | 0.074 | 0.151 | 0.162 | 0.357 |
| TOB | 1 | | | | | | | | | | |
| LEV | .498** | 1 | | | | | | | | | |
| SZE | -.163** | -.057** | 1 | | | | | | | | |
| AGE | -.019 | .066** | .220** | 1 | | | | | | | |
| ENV | .024 | -.060** | .377** | .105** | 1 | | | | | | |
| ENR | .028 | -.025 | .227** | .159** | .592** | 1 | | | | | |
| SAF | .040 | -.054* | .231** | .054* | .616** | .433** | 1 | | | | |
| EMP | .008 | -.031 | .440** | .198** | .457** | .384** | .444** | 1 | | | |
| PRO | .056** | -.086** | .220** | .116** | .447** | .365** | .390** | .360** | 1 | | |
| COM | .037 | -.024 | .499** | .172** | .518** | .397** | .394** | .526** | .483** | 1 | |
| GEN | .092** | -.029 | .307** | .108** | .404** | .360** | .416** | .458** | .569** | .657** | 1 |

*, ** indicate significance at the 5 and 1% levels, respectively

Table 2.a and Table 2.b describe the regression results on Tobin's Q during the study period. All independent variables are 1 year lag of the Q ratio. In each industry two models are used to find out the contribution of CSR dimensions to the formation of market performance. The results show that although the contribution of CSR, in the overall industry, to the formation of market performance is not too high, it is not so when viewed from a particular industry perspective. The implementation of CSR gives the largest contribution, to the formation of market value, in the industries of consumer goods, agriculture, and miscellaneous industry. There are characteristics that differentiate the consumer goods and agriculture industries with other types of industries namely the implementation of CSR on the dimensions of the product. This means that companies in the consumer goods and agriculture industries are always encouraged to continue to develop products and give high attention to their product safety and product liability. Policies related to the product's CSR dimension are, therefore, closely related to the acceptability of products by stakeholders, especially consumers. A high degree of acceptability will not only enhance the company's reputation but also its sales and profitability.

Table 2.a Regression Result for Tobin's Q

| | Overall | | Agriculture | | Mining | | Basic & Chemicals | | Miscellaneous | |
|----------------|----------------------------------|-------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Const. | 4.129 ^{***} (8.719) | 5.837 ^{***} (11.122) | 1.533 (0.313) | -6.407 (-1.223) | 13.915 ^{***} (3.861) | 18.172 ^{***} (3.742) | 2.713 ^{***} (3.350) | 3.510 ^{***} (3.617) | -3.228 ^{***} (-4.210) | -1.120 (-1.540) |
| LEV | 1.427 ^{***} (26.712) | 1.449 ^{***} (27.570) | -3.102 ^{***} (-4.360) | -3.734 ^{***} (-4.354) | 1.666 ^{**} (2.441) | 1.806 ^{**} (2.430) | 0.646 ^{***} (6.181) | 0.747 ^{***} (6.890) | 0.740 ^{***} (11.683) | 0.902 ^{***} (13.901) |
| SZE | -0.118 ^{***} (6.911) | (-0.194) ^{***} (-9.778) | 0.059 (0.353) | 0.343 [*] (1.847) | -0.419 ^{***} (-3.535) | -0.58 ^{***} (-3.432) | -0.055 [*] (-1.794) | -0.096 ^{**} (-2.531) | 0.136 ^{***} (4.853) | 0.047 [*] (1.739) |
| AGE | -0.003 (-1.213) | (-0.004) [*] (-1.886) | -0.004 (-0.556) | 0.026 ^{***} (2.766) | -0.012 (-0.528) | -0.011 (-0.413) | -0.013 ^{***} (-2.85) | -0.014 ^{***} (-2.710) | 0.002 (0.846) | -0.002 (-0.853) |
| ENV | | 0.584 [*] (1.803) | | -1.840 (-1.181) | | 4.255 [*] (1.781) | | 0.221 (0.384) | | -0.516 (-1.215) |
| ENR | | -0.231 (-0.655) | | -2.097 [*] (-1.950) | | -3.688 (-1.046) | | -0.041 (-0.072) | | -1.244 [*] (-1.962) |
| SAF | | 0.114 (0.453) | | 2.117 ^{**} (2.288) | | -0.383 (-0.172) | | -0.745 [*] (-1.794) | | 1.645 ^{***} (5.414) |
| EMP | | 0.485 (0.887) | | 0.365 (0.162) | | -8.118 (-1.432) | | 1.560 (1.602) | | 2.264 ^{***} (3.004) |
| PRO | | 0.571 ^{**} (2.148) | | -3.321 ^{**} (-2.595) | | 3.629 (1.006) | | -0.441 (-1.111) | | 0.121 (0.351) |
| COM | | 0.478 [*] (1.608) | | 0.537 (0.371) | | 0.454 (0.162) | | 0.791 (1.599) | | 0.978 ^{**} (2.389) |
| GEN | | 0.432 ^{***} (3.375) | | 0.228 (0.363) | | 0.768 (0.765) | | 0.380 [*] (1.717) | | -0.598 ^{***} (-3.821) |
| F | 264.519 ^{***} | 92.57 ^{***} | 6.581 ^{***} | 4.515 ^{***} | 8.435 ^{***} | 3.294 ^{***} | 16.791 ^{***} | 7.599 ^{***} | 57.824 ^{***} | 34.526 ^{***} |
| R ² | 0.267 | 0.299 | 0.215 | 0.410 | 0.178 | 0.230 | 0.196 | 0.276 | 0.525 | 0.697 |
| N | 2183 | 2183 | 76 | 76 | 121 | 121 | 210 | 210 | 161 | 161 |

Notes: Table 2.a reports the results from OLS of Tobin's Q during period 2007 – 2014 on the overall, agriculture, mining, basic & chemicals, and miscellaneous industries sample. The independent variables are lag 1 year of Tobin's Q. T-statistics are in parentheses. *, **, *** Indicate significance at the 10, 5, and 1% levels, respectively.

Table 2.b Regression Result for Tobin's Q (continued)

| | Consumer Goods | | Property & Real Estate | | Infrastructures & Transportation | | Finance | | Trading & Services | |
|----------------|----------------------|-----------------------|------------------------|--------------------|----------------------------------|-----------------------|---------------------|---------------------|-----------------------|-----------------------|
| | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Const. | -8.561** (-2.440) | -6.964* (-1.667) | -0.522 (-0.735) | -0.766 (-0.898) | 3.917*** (3.305) | 5.261*** (4.060) | 1.331*** (3.596) | 1.645*** (3.692) | 3.711*** (3.471) | 5.868*** (4.791) |
| LEV | -1.000 (-1.178) | -0.503 (-0.631) | 0.42*** (2.103) | 0.411** (1.966) | 1.360*** (16.966) | 1.361*** (16.692) | -0.075 (-0.585) | -0.037 (-0.270) | 1.891*** (23.631) | 1.870*** (23.853) |
| SZE | 0.339*** (2.822) | 0.260* (1.726) | 0.049* (1.906) | 0.058* (1.859) | -0.102** (-2.396) | -0.161*** (-3.276) | -0.002 (-0.163) | -0.015 (-0.787) | -0.090** (-2.326) | -0.196*** (-4.198) |
| AGE | 0.049*** (5.361) | 0.041*** (4.824) | 0.006* (1.848) | 0.007** (2.032) | -0.024*** (-3.798) | -0.022*** (-3.471) | -0.003 (-1.594) | -0.002 (-1.446) | -0.018*** (-3.440) | -0.020*** (-3.789) |
| ENV | | -4.921*** (-2.742) | | -0.323 (-0.904) | | 0.875 (0.996) | | 0.530 (1.017) | | 0.399 (0.436) |
| ENR | | 6.029*** (3.712) | | 0.583* (1.695) | | -0.892 (-0.968) | | -0.441 (-0.723) | | -0.725 (-0.992) |
| SAF | | 2.899** (2.216) | | -0.330 (-1.177) | | 1.400*** (2.695) | | 0.95* (1.943) | | -0.917* (-1.666) |
| EMP | | -7.045** (-2.342) | | -0.127 (-0.195) | | 1.811 (1.377) | | -0.708 (-1.534) | | 5.440*** (4.272) |
| PRO | | 4.432*** (3.504) | | 0.191 (0.586) | | -1.701* (-1.710) | | -0.017 (-0.050) | | 0.377 (0.693) |
| COM | | 0.674 (0.385) | | -0.401 (-1.474) | | 0.788 (1.208) | | 0.413 (1.591) | | -0.525 (-0.788) |
| GEN | | 0.842 (1.416) | | 0.235* (1.742) | | -0.574* (-1.755) | | -0.007 (-0.063) | | 0.470* (1.611) |
| F | 11.191*** | 9.707*** | 8.036*** | 3.591*** | 126.679*** | 42.271*** | 1.690 | 1.373 | 216.841*** | 72.073*** |
| R ² | 0.195 | 0.424 | 0.062 | 0.074 | 0.728 | 0.758 | 0.012 | 0.032 | 0.530 | 0.558 |
| N | 143 | 143 | 323 | 323 | 146 | 146 | 422 | 422 | 581 | 581 |

Notes: Table 2.b reports the results from OLS of Tobin's Q during period 2007 – 2014 on the consumer goods, property & real estate, infrastructures & transportation, finance, and trading & services industries sample. The independent variables are lag 1 year of Tobin's Q. T-statistics are in parentheses. *, **, *** Indicate significance at the 10, 5, and 1% levels, respectively.

In addition to the products, the occupational safety and health dimension also contributes greatly to the formation of market performance, not only to the consumer goods and agriculture industry but also to the miscellaneous industry (which includes industries such as automotive, textile and garment, and electronics). This CSR dimension is related to the creation of a safe and comfortable work environment for employees. Good implementation of this CSR dimension can maintain and even increase the productivity of the company, and therefore positively affect the improvement of company performance. The employee-related CSR dimension also contributes greatly to the formation of market performance, particularly in the miscellaneous and consumer goods industries. This dimension is related to the commitment to improve the quality and satisfaction of its employees. The high quality and satisfaction level of the employees will lead to the increasing contribution to the organization. Higher contributions ultimately have a positive impact on improving organizational performance, including financial performance.

Tables 2.a and 2.b also show that the environment dimension of CSR related positively to Tobin's Q in the mining industry, and negative on consumer goods. The mining industry is an extractive industry, where its operations directly relate to the utilization of natural resources. Disclosures of the environment dimension in the mining industry could reduce the negative image in the public's eye that mining activities are environmentally destructive. Disclosure of compliance with environmental regulations may include disclosure of pollution control activities as a result of company operations, reforestation, and land reclamation. In the consumer goods industry, the environment dimension of CSR is triggered by the increasing demands of environmentally conscious consumers. The consumer goods industry, among others, includes food and beverage, cigarette, and pharmaceutical industries, is quite identical to the potential for environmental pollution due to its operating activities. Efforts to control pollutants through environmental management and monitoring efforts undertaken with the construction of liquid, solid, and gas waste treatment facilities in the consumer goods industry are likely to be carried out to obtain a license to operate, and the costs incurred are considered an additional burden that can reduce the ability of firms to generate profits.

The energy dimension of CSR has a positive relationship with Tobin's Q in the consumer goods and property industries, but negative in the agricultural and miscellaneous industries. This CSR dimension is oriented towards improving energy efficiency in company operations and to create alternative sources of energy. Application of energy dimensions in business activities can be done in various ways, such as changing the use of oil with gas fuel, alternative energy sources, and utilization of agricultural waste for alternative energy sources. Investment in the energy dimension of CSR requires a relatively high initial cost, but in the long run will have an impact on better company performance (Panwar, R., et al., 2016). When a company applies the energy dimension,

its impact can also affect financial performance. This is due to the reduced use of electricity, water, paper, fuel, and raw materials, will lead to the lowering of overall costs, which in turns will increase productivity and company performance. In the agriculture and miscellaneous industries, this CSR dimension is not directly related to value creation effort, and therefore negatively related.

The occupational safety and health dimension of CSR related positively with Q ratio in the agriculture, consumer goods, infrastructure and transportation, miscellaneous, and finance industries; but negatively affect the basic and chemicals industries as well as trading and services. Companies need to maintain the safety and health of their employees, both physically and mentally. Poor safety and health will result in high absenteeism and low productivity. The availability of a good safety and health program, supported by a healthy working environment, will be able to improve employee performance. This, in turn, can have a positive impact on the performance of the company, thereby improving Tobin's Q. In basic and chemicals industries, and also, trading and services, the implementation of the CSR dimension of occupational safety and health is generally done to meet the legal requirements. In this case, many organizational safety and health programs are structured not based on causal analysis of safety and health action chains that contribute to the company's financial performance. This lack of analysis, even resulting in occupational safety and health activities negatively affect the financial performance of the company.

The employee dimension of CSR activities has a positive relationship with Tobin's Q in the trade and services industry, as well as various industries; but negative in the consumer goods industry. This indicates that through the application of effective employee-oriented activities, job satisfaction will increase. The increasing of employee satisfaction will motivate employees to contribute optimally to the organization. This will have a positive impact, not only on the performance of operations but also, the financial performance of the company. In the consumer goods industry, the implementation of the employee dimension is perceived as an additional activity with greater cost than its benefits. The emphasis of the consumer goods industry in Indonesia on production and sales resulted in CSR dimension of manpower is actually considered as a constraint on the achievement of financial performance.

The product dimension of CSR has a positive relationship with Q ratio in the consumer goods industry, but negative in the agriculture industry as well as in the infrastructure and transport. The main focus of this dimension is on product development, product safety, and product liability. This is done to ensure that the resulting product is constantly evolving and does not adversely affect or harm consumers, with the ultimate goal of increasing customer loyalty. This finding is in accordance with the theory of legitimacy that suggest that the company tries to develop its products to increase customer loyalty that will ultimately meet the expectations of stakeholders.

The increasing of customer loyalty will lead to increased market performance. In the agriculture, infrastructure and transportation industries, programs related to product safety and product liability are seen as a burden that can hinder the company in achieving its financial objectives.

The community dimension in the miscellaneous industry is positively related to Tobin's Q. Based on these results, it can be stated that the industry gets added value through CSR activities of community involvement due to the great dependence between the operational activities of the company and the surrounding community. Therefore, by implementing Community activities aimed at improving community relations, companies will potentially gain operational efficiency and competitive advantage, leading eventually to increased market performance.

The general dimension has a positive relationship with Tobin's Q in industries: basic and chemicals, property, and trading and services; but negatively in the miscellaneous industry as well as infrastructure and transportation. In contrast to other dimensions of CSR, this dimension has only items relating to general corporate objectives with regard to corporate social responsibility, and information relating to corporate social responsibility other than those mentioned. High scores on this dimension generally indicate the company's commitment to implement CSR. The higher the company's commitment the higher the market's appreciation of the company. The negative relation on the Q ratio of the miscellaneous industry as well as the infrastructure and transportation is due to the past experience shows the low implementation of the firm's commitment to the industry group. This can be exemplified by the large number of aviation and passenger ship accidents, the low operational performance of port and airport, and public complaints from the pollution caused by companies in such industry groups.

4.2. Robustness Check

To test the persistence of CSR dimensions in explaining market performance, as well as exploring the immediate relationship between CSR dimensions and performance, OLS without lag between the dependent and independent variables is implemented. Table 3.a and 3.b present the regression results for Tobin's Q during the study period. All independent variables are in the same year as Q ratio. Most CSR dimensions have both immediate and delayed influence on Q ratios. This can be seen in the dimensions of: the environment in mining and consumer goods industries; the products in consumer goods industry; the occupational safety and health in agriculture and consumer goods industries; the employment in consumer goods, trading and services, and miscellaneous industries. The results also show that the largest contribution of CSR implementation to market performance still occurs in miscellaneous, agriculture and consumer goods industries.

Some CSR dimensions only have an immediate impact. The community dimension shows the most obvious immediate impact. Community development activities have an impact on corporate value creation in the same year in basic and chemicals, as well as property industries. While in the miscellaneous industry the community dimension has an immediate and delayed impact. The immediate impact of activities associated with community dimension can occur because of the tendency of companies to publicize such activities as soon as possible through the mass media. This is done not solely to indicate the prestige of the company but also to improve the company's acceptability. Increased levels of acceptability will have a positive impact on market performance. In the property industry, the increase in community activity is generally reactive. That is, the company will increase this level of activity in case of public complaints disturbed by the company's operational activities. Thus, the publication that occurs is negative and this has an impact on the decline in market performance of the property industry companies.

The environment dimension of CSR has an immediate effect in the agriculture industry. This is because the environmental impact of agricultural business is generally widespread to the surrounding community. The nature of agriculture businesses (which include farming, plantations, livestock, and forestry) are utilize vast land and potentially causing massive pollution and disaster for the surrounding community. Poor environmental policies have the potential to incur substantial harm to the surrounding community (e.g. in the form of landslides, flood, or spill of livestock manure into residential areas). The loss of community will become bad news material that can soon spread widely to the investor. A bad assessment by investors, then, will be able to degrade the company's market performance. This is getting worse because environmental policy failures can also cause product failures, such as flooding can lead to crop failure, poor handling of livestock manure can lead to an increase in livestock mortality. It's likely that in the agriculture industry, investors attributed the increase in the environment dimensions of CSR activities to the reactions of firms to overcome failures due to bad environmental policies. In other industry groups, namely mining and consumer goods, environmental CSR has immediate and delayed impacts. This is because the poor environmental performance does not always result in immediate product failure.

Table 3.a Regression Result for Tobin's Q

| | Overall | | Agriculture | | Mining | | Basic & Chemical | | Miscellaneous | |
|----------------|-----------------------------------|-----------------------------------|-----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| | Model 3 | Model 4 | Model 3 | Model 4 | Model 3 | Model 4 | Model 3 | Model 4 | Model 3 | Model 4 |
| Const. | 4.113 ^{***} (7.942) | 5.636 ^{***} (9.802) | -0.083 (-0.020) | -3.662 (-0.771) | 15.740 ^{***} (3.942) | 19.202 ^{***} (3.378) | 3.200 ^{***} (4.328) | 4.381 ^{***} (4.930) | -4.037 ^{***} (-4.407) | -1.601 [*] (-1.891) |
| LEV | 1.170 ^{***} (19.260) | 1.193 ^{***} (19.959) | -2.814 ^{***} (-4.669) | -1.844 ^{**} (-2.402) | 1.106 (1.446) | 1.044 (1.226) | 0.654 ^{***} (7.055) | 0.742 ^{***} (7.520) | 0.738 ^{***} (9.387) | 0.922 ^{***} (11.746) |
| SZE | -0.117 ^{***} (-6.272) | -0.187 ^{***} (-8.589) | 0.103 (0.706) | 0.196 (1.164) | -0.485 ^{***} (-3.705) | -0.619 ^{***} (-3.115) | -0.072 ^{**} (-2.563) | -0.125 ^{***} (-3.565) | 0.166 ^{***} (4.953) | 0.061 [*] (1.912) |
| AGE | 0.002 (0.796) | 0.001 (0.263) | -0.003 (-0.474) | 0.014 (1.592) | -0.003 (-0.115) | 0.006 (0.206) | -0.016 ^{***} (-3.598) | -0.015 ^{***} (-3.186) | 0.002 (0.464) | -0.004 (-1.172) |
| ENV | | 0.338 (0.932) | | -2.822 [*] (-1.939) | | 4.839 [*] (1.757) | | 0.303 (0.574) | | -0.612 (-1.269) |
| ENR | | -0.321 (-0.803) | | -2.137 ^{**} (-2.302) | | -4.872 (-1.022) | | 0.416 (0.763) | | -1.891 ^{**} (-2.392) |
| SAF | | -0.009 (-0.031) | | 1.926 ^{**} (2.352) | | -0.689 (-0.254) | | -0.399 (-0.986) | | 1.527 ^{**} (4.368) |
| EMP | | 0.668 (1.092) | | 2.989 (1.586) | | -6.879 (-1.043) | | 0.612 (0.677) | | 3.058 ^{***} (3.459) |
| PRO | | 0.619 ^{**} (2.098) | | -0.041 (-0.035) | | 2.831 (0.672) | | -0.190 (-0.510) | | -0.094 (-0.244) |
| COM | | 0.304 (0.937) | | 1.901 (1.478) | | -1.649 (-0.520) | | 0.807 [*] (1.729) | | 1.333 ^{***} (2.867) |
| GEN | | 0.588 ^{***} (4.123) | | -0.624 (-1.216) | | 1.432 (1.227) | | 0.109 (0.512) | | -0.528 ^{***} (-2.844) |
| F | 143.359 ^{***} | 53.052 ^{***} | 7.451 ^{***} | 4.732 ^{***} | 7.631 ^{***} | 2.865 ^{***} | 24.217 ^{***} | 8.958 ^{***} | 41.666 ^{***} | 28.911 ^{***} |
| R ² | 0.194 | 0.229 | 0.282 | 0.486 | 0.196 | 0.248 | 0.303 | 0.359 | 0.494 | 0.705 |
| N | 1794 | 1794 | 61 | 61 | 98 | 98 | 171 | 171 | 132 | 132 |

Notes: Table 3.a reports the results from OLS of Tobin's Q during period 2007 – 2014 on the overall, agriculture, mining, basic & chemicals, and miscellaneous industries sample. The independent variables are in the same year of Tobin's Q. T-statistics are in parentheses. *, **, *** Indicate significance at the 10, 5, and 1% levels, respectively.

Table 3.b Regression Result for Tobin's Q

| | Consumer Goods | | Property | | Infrastructure & Transportation | | Financial | | Trading & Services | |
|----------------|----------------------|-----------------------|---------------------|---------------------|---------------------------------|---------------------|---------------------|---------------------|----------------------|-----------------------|
| | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Const. | -8.901** (-2.236) | -7.707 (-1.576) | -0.724 (-0.918) | -1.200 (-1.276) | 3.970*** (1.842) | 4.678* (1.851) | 1.363*** (3.151) | 1.661*** (3.202) | 2.935*** (2.622) | 4.663*** (3.658) |
| LEV | -1.113 (-1.142) | -0.763 (-0.806) | 0.203 (0.936) | 0.232 (1.015) | 1.246*** (7.226) | 1.200*** (6.385) | -0.080 (-0.531) | -0.054 (-0.335) | 1.511*** (17.713) | 1.500*** (18.144) |
| SZE | 0.346** (2.532) | 0.270 (1.535) | 0.056* (1.953) | 0.071** (2.040) | -0.104 (-1.341) | -0.118 (-1.221) | -0.003 (-0.157) | -0.016 (-0.725) | -0.060 (-1.478) | -0.152*** (-3.110) |
| AGE | 0.059*** (5.565) | 0.051*** (5.123) | 0.010*** (2.717) | 0.011*** (2.686) | -0.016 (-1.386) | -0.020 (-1.513) | -0.003 (-1.600) | -0.003 (-1.46) | -0.014** (-2.440) | -0.015*** (-2.722) |
| ENV | | -5.807*** (-2.666) | | -0.526 (-1.324) | | 1.655 (0.920) | | 0.330 (0.531) | | 0.428 (0.437) |
| ENR | | 5.547*** (2.909) | | 0.669* (1.749) | | -1.765 (-0.805) | | -0.663 (-0.893) | | -1.191 (-1.511) |
| SAF | | 3.240** (2.015) | | -0.506 (-1.589) | | 0.317 (0.277) | | 0.793 (1.401) | | -0.962* (-1.649) |
| EMP | | -6.015* (-1.689) | | 0.830 (1.111) | | -1.695 (-0.646) | | -0.397 (-0.708) | | 6.274*** (4.749) |
| PRO | | 4.049*** (2.671) | | -0.153 (-0.422) | | -1.570 (-0.733) | | 0.235 (0.613) | | 0.463 (0.821) |
| COM | | 1.350 (-0.633) | | -0.502* (-1.695) | | 0.548 (0.415) | | 0.445 (1.497) | | -0.876 (-1.267) |
| GEN | | 1.323* (1.886) | | 0.377** (2.531) | | 0.119 (0.183) | | -0.043 (-0.326) | | 0.459 (1.485) |
| F | 11.620*** | 8.222*** | 7.091*** | 3.787*** | 23.913*** | 7.109*** | 1.646 | 1.049 | 120.177*** | 42.784*** |
| R ² | 0.233 | 0.432 | 0.074 | 0.128 | 0.393 | 0.406 | 0.014 | 0.030 | 0.429 | 0.475 |
| N | 119 | 119 | 269 | 269 | 117 | 117 | 346 | 346 | 483 | 483 |

Notes: Table 3.b reports the results from OLS of Tobin's Q during period 2007 – 2014 on the consumer goods, property & real estate, infrastructures & transportation, finance, and trading & services industries sample. The independent variables are in the same year of Tobin's Q. T-statistics are in parentheses. *, **, *** Indicate significance at the 10, 5, and 1% levels, respectively.

Some CSR dimensions have only delayed effects. This can be seen in product and general CSR dimensions. The product dimension of CSR in the agriculture and infrastructure and transportation industries is related to the Q ratio of the following year. This happens because the company policy related to product safety and product liability can only give implication in the long term. For example, high accident rates due to highway design faults often occur long after the road is completed. In other words, it takes a longer time for the investor to consider the effect of the product dimension on Q ratio, in both industry groups. This is certainly different from the influence of the product dimension of CSR on the consumer goods industry. Consumer goods industry's products generally have very low durability; these products tend to be consumed in a short time. This leads to a policy impact of the product dimension, such as products that are found to be harmful to health, can be quickly observed. Hence the product dimension in the consumer goods industry shows both immediate and delayed impacts. Meanwhile, delays in the effect of the general dimension of CSR are more due to investors' decisions awaiting the realization of corporate commitments related to CSR.

5. Conclusions

This study aims to analyze whether various dimensions of CSR have an influence on the market performance of companies in various industry groups. This study divides the CSR dimension into seven: environment, energy, occupational safety and health, employee, product, community, and general. There are nine industry groups studied: agriculture, mining, basic and chemicals, miscellaneous, consumer goods, infrastructure and transportation, property, finance, and trading and services. The results showed that all industry groups in Indonesia Stock Exchange have implemented various dimensions of CSR. Although OLS results in all samples show CSR contribution to the formation of market performance is not large; this is not the case when analyzed by industry type. In the consumer goods, agriculture, and miscellaneous industries, CSR's contribution to market performance is substantial. These results are consistent both for models with and without lag. This indicates that CSR activities conducted by different industries are perceived differently by investors.

Further investigation shows that the CSR dimension contributes differently to the formation of Q ratio, to different industries. The environment dimension has a positive relationship with the Q ratio in the mining industry, and negative in the consumer goods. The energy dimension is positively associated with Tobin's Q in the consumer goods and the property industries but negatively in the agricultural and miscellaneous industries. The dimension of occupational health and safety have a positive relationship with Q ratio in the agriculture, consumer goods,

infrastructure and transportation, miscellaneous, and finance industries; but negatively affect in basic and chemicals as well as trading and services industries. The employee dimension of CSR activities positively affect Q ratio in the trade and services, as well as miscellaneous industries; but negatively in the consumer goods industry. Product dimensions are positively related to the Q ratio in the consumer goods industry, and negatively in the agriculture and infrastructure and transport industries. The community dimension has a positive relationship with Tobin's Q in miscellaneous industry.

Not all CSR dimensions have delayed relationships, some have immediate relation to the firm's market performance. The Community dimension shows an immediate relation in basic and chemicals as well as property industries. While the environment dimension of CSR has an immediate effect in the agriculture industry. Some CSR dimensions have only delayed effects. This can be seen in the product and general dimensions of CSR. However, most of the CSR dimensions show both immediate and delayed effects. The time interval of the effect of CSR on market performance is influenced by the motivation to carry out CSR activities, the events that become the trigger of CSR activity implementation, as well as the clarity and strategic value of the company's CSR policy.

This study has several implications. The managerial implication of this research is that the managers of some industry groups must really pay attention to their CSR policies because of their great contribution to the formation of corporate value. Management in each industry group should also focus on implementing CSR in certain dimensions that have a significant effect on the value creation process in each industry. CSR policies should be based on an analysis that links each dimension of CSR to the goals of the value creation of the firm. For investors, this study has implications for the need to consider the aspects of CSR disclosure that affect the market performance of companies in each industry when making investment decisions. However, we also recognize that the use of different CSR performance measures can have different implications. Therefore the use of different CSR performance measures is expected to be carried out in future studies.

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Appendix: Items in various dimensions of CSR

1. Environment

- 1.1 Pollution control of operations; research and development expenditure for pollution reduction;
- 1.2 Statements indicating that the company's operations do not result in pollution or comply with the laws and regulations of pollution;
- 1.3 A statement indicating that the pollution of the operation has been or will be reduced;
- 1.4 Prevention or repair of environmental damage caused by natural resources processing, such as land reclamation or reforestation;
- 1.5 Conservation of natural resources, such as recycling glass, iron, oil, water and paper;
- 1.6 Use of recycled materials;
- 1.7 Receive awards in relation to the company's environmental programs;
- 1.8 Designing a harmonious facility with the environment;
- 1.9 Contribution in art that aims to beautify the environment;
- 1.10 Contribution in the restoration of historical buildings;
- 1.11 Waste treatment;
- 1.12 Undertaking environmental impact studies to monitor the company's impact on the environment;
- 1.13 Environmental protection.

2. Energy

- 2.1 Using energy more efficiently during the manufacturing process;
- 2.2 Utilizing used materials to produce energy;
- 2.3 Disclosure of energy savings as a result of product recycling;
- 2.4 Discussing the company's efforts in reducing energy consumption;
- 2.5 Disclosure of increased energy efficiency of the product;
- 2.6 Research aimed at improving energy efficiency of the product;
- 2.7 Disclosing the company's energy policies.

3. Occupational Safety and Health

- 3.1 Reducing pollution, irritants, or risk in the work environment;
- 3.2 Promoting labor safety and physical or mental health;
- 3.3 Revealing work accident statistics;

- 3.4 Complying with health and safety standard regulations;
- 3.5 Accepting award related to safety;
- 3.6 Establishing a safety committee;
- 3.7 Conducting research to improve work safety;
- 3.8 Providing health services for the workforce.

4. Employee

- 4.1 Recruitment or utilization of female / disabled workers;
- 4.2 Disclosing the percentage/number of female/disabled workers in the managerial level;
- 4.3 Disclosing the purpose of the use of women / disabled workers in employment;
- 4.4 Program for the advancement of female / disabled workers;
- 4.5 Training of workers through specific programs at work;
- 4.6 Providing financial assistance to the workforce in pursuing further education;
- 4.7 Establishing a training center;
- 4.8 Disclosing assistance or guidance to workers who are in the process of resigning or who have made mistakes;
- 4.9 Reveals employee home ownership planning;
- 4.10 Providing facilities for recreational activities;
- 4.11 Disclosing percentage of salary for retirement;
- 4.12 Disclosing the remuneration policy in the company;
- 4.13 Disclosing the amount of labor within the company;
- 4.14 Disclosing existing managerial levels;
- 4.15 Disclosing staff disposition - where staff are placed;
- 4.16 Disclosing the number of staff, working period and their age group;
- 4.17 Disclosing labor statistics, e.g. sales per worker;
- 4.18 Disclosing the qualifications of recruited workforce;
- 4.19 Disclosing the plan of share ownership by the workforce;
- 4.20 Disclosing other benefit sharing plans;
- 4.21 Disclosing information about the relationship of management and labor in improving job satisfaction and motivation;
- 4.22 Disclosing information on the stability of the workforce and the future of the company;
- 4.23 Providing separate employment reports;
- 4.24 Reporting the company's relationship with the union;
- 4.25 Reporting disturbances and labor actions;

- 4.26 Disclosing information on how labor action is negotiated;
- 4.27 Improving working conditions in general;
- 4.28 Providing information about the reorganization of the company affecting the workforce;
- 4.29 Providing information and statistics on labor turnover.

5. Product

- 5.1 Disclosure of company product development information, including packaging;
- 5.2 Explanation or figures of expenses for product research and development and its benefits;
- 5.3 Disclosure of information about a company research project to improve the product;
- 5.4 Disclosure that the product meets safety standards;
- 5.5 Commitment to make products safer for consumers;
- 5.6 Conducting research on company product safety level;
- 5.7 Disclosure of hygiene / health improvement in processing and product preparation;
- 5.8 Disclosure of information on the safety of the company's products;
- 5.9 Disclosure of information about product quality that is reflected in the award received;
- 5.10 Verifiable information that product quality has improved (e.g. ISO 9000).

6. Community

- 6.1 Cash donations, products, or services, to support community activities, education and the arts;
- 6.2 Part-time employment of students;
- 6.3 Act as a sponsor for public health projects;
- 6.4 Helps medical research;
- 6.5 Act as a sponsor for educational conferences, seminars or art exhibitions;
- 6.6 Financing the scholarship program;
- 6.7 Opening company facilities for the community;
- 6.8 Sponsoring national campaigns;
- 6.9 Support the development of local industry.

7. General

- 7.1 Disclosure of general corporate objectives/policies relating to corporate social responsibility to the public.
- 7.2 Information relating to corporate social responsibility other than those mentioned previously.

