The Influence of CEOs’ Hubris on Firms’ Performance in Indonesia: The Moderating Effects of CEOs’ Power and Board Vigilance

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Abstract: Studies of CEOs’ hubris have long found that board vigilance is effective in controlling the negative influence of CEOs’ hubris on firms’ performance. Past studies specifically argued that the CEOs’ non-duality and independent directors’ representations are the determinants of board vigilance. However, these studies have only explored the causal relationship in the one-tier corporate governance setting. Therefore, this study analyzed the influence of CEOs’ hubris on firms’ performance in Indonesia, by adopting two-tier corporate governance by taking into account the CEO-board power dynamics. Hierarchical regressions were performed on 99 public listed firms. The results found CEOs’ hubris in Indonesia contributes positively to firms’ performance, while boards with a large number of commissioners are effective in strengthening the positive influence of hubris on firms’ performance. Furthermore, this study hints that two-tier corporate governance is more efficient in controlling hubris than the one-tier system.

Keywords: CEOs’ hubris, firms’ performance, CEOs’ power, board vigilance, corporate governance.

JEL Classification:G34, M12, M14
Introduction

Past studies have long found that leaders’ characteristics have influenced their strategic decision-making, thus leading their firms to success (Koo and Park, 2018; Wang et al., 2016). In executing high-risk projects and investments, a CEO’s confident decision-making is vital (Hiller and Hambrick, 2005; H. Park and Yoo, 2017). CEOs are often influenced by their past successful experiences when making decisions, even if they did not always yield positive results for their firms (Claxton et al., 2015). Business research streams proxy this condition as CEOs’ hubris. Originating in Greek mythology, hubris is used to explain executives’ tyrannical behavior (H. Park and Yoo, 2017; Petit and Bollaert, 2012). This term has been used when explaining failed acquisitions (Roll, 1986), acquisition premiums (Hayward and Hambrick, 1997), failed investments (Malmendier and Tate, 2005), and fluctuating firm performance (Chatterjee and Hambrick, 2007).

CEOs’ hubris is characterized by excessive overconfidence that develops from the media’s praise, successful experiences, and self-confidence (Asad and Sadler-Smith, 2020; Hayward and Hambrick, 1997; H. Park and Yoo, 2017; Petit and Bollaert, 2012). CEOs’ hubris significantly affects strategic decisions, in which CEOs overestimate their abilities and manipulate the decision-making process (Asad and Sadler-Smith, 2020; Cormier et al., 2016). A proven and effective way to mitigate hubris is through board vigilance (Hayward and Hambrick, 1997; J. H. Park et al., 2018). Indicated by the CEOs’ non-duality (J. H. Park et al., 2018), and outside directors’ representations (Hayward and Hambrick, 1997) board vigilance mitigates CEOs’ hubris by increasing the monitoring of the CEOs. Thus, CEOs become more careful in deciding which projects or investments to take.

A study by J. H. Park et al., (2018) explored the direct link between hubris and firm performance in South Korea, and found that the country-specific context determines the result of the CEOs’ hubris. CEOs’ hubris research in Asia has only been conducted in China (Li and Tang, 2010; Tang et al., 2015; Zhang et al., 2020) and South Korea (J. H. Park et al., 2018), which makes it important to conduct another study in Southeast Asia, to widen the research stream. Because of this gap, an extensive study in Indonesia is necessary.

Indonesia adopted the two-tier system that does not allow CEO-duality to appear (World Bank, 2014). It is more interesting to approach board vigilance from the side of the board of commissioners (BOC). Besides, the two-tier system mandates a bigger board with diverse personnel who have different knowledge and skills (Ali, 2018; Zubeltzu-Jaka et al., 2020) that increases the board’s independence (Tulung and Ramdani, 2018) and vigilance in monitoring the CEO (J. H. Park et al., 2018). Therefore, this study aims to expand the CEOs’ hubris research stream by conducting research in Indonesia.

Literature Review

CEOs’ Hubris

Originated from ancient Greek, hubris is defined as exaggerated pride or self-confidence (Petit and Bollaert, 2012). In the business research stream, this term is used to explain an executive’s overconfidence in his/her strategic decision-making process (H. Park and Yoo, 2017; Powell et al., 2011). The
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initial study conducted by Roll (1986) found that hubristic executives overestimate the value of the new entity during the acquisition process and have their focus fully on achieving synergy. These CEOs should have known that any bid above the market price means an error in the valuation; thus, the bidding firms’ shareholders suffer losses (Claxton et al., 2015; Haynes et al., 2017).

A further study by Hayward and Hambrick (1997) found that shareholders’ losses following an acquisition were higher when executive hubris was high, as these CEOs mistranslated their previous successful organizational experiences into an ability to manage additional entities. CEOs’ hubris is the result of three indicators, namely: (1) firm performance, (2) media praise, and (3) CEOs’ compensation (Haynes et al., 2017; Hayward and Hambrick, 1997). Media praise contributes to hubris by allowing CEOs to receive external validation of their apparent capabilities (El-Khatib et al., 2015; Haynes et al., 2017; Hayward and Hambrick, 1997). CEOs who have been praised by the media also receive glorified treatment from their acquaintances (Haynes et al., 2017; H. Park and Yoo, 2017). The distinctive treatment allows hubristic CEOs to increase their discretion in collecting important information (El-Khatib et al., 2015; Haynes et al., 2017; J. H. Park et al., 2018).

The definition of hubris often overlaps with the term high self-esteem (Sadler-Smith et al., 2017), core-self-evaluation (Hiller and Hambrick, 2005), and narcissism (Chatterjee and Hambrick, 2007). High self-esteem is the belief that an individual can carry out a task and that they are entitled to gain benefits from other people’s resources, which lack the specific overconfidence features such as excessive pride or arrogance (J. H. Park et al., 2018; Sadler-Smith et al., 2017). Meanwhile, core-self-evaluation (CSE) specifically states that the measure of CSE aligns closely with hubris, but only when the level is high, (i.e Hyper-CSE) (Hiller and Hambrick, 2005; Sadler-Smith et al., 2017).

Although narcissistic CEOs were found to be highly dependent on media and social praise, it is a personality trait that differs from the cognitive bias (Asad and Sadler-Smith, 2020; Chatterjee and Hambrick, 2007; H. Park and Yoo, 2017). Following the behavioral strategy research stream that classified CEOs’ hubris as a cognitive bias in their strategic decision-making (Powell et al., 2011), CEOs’ hubris is defined as a cognitive bias that builds upon internal and external constructs which result in executives incorrectly measuring their capabilities when decision-making (H. Park and Yoo, 2017; J. H. Park et al., 2018).

**CEOs’ Power Strengthening Effect**

A CEO’s power specifically refers to an executive’s ability to exert his/her authority and thus influence the board of directors and the whole firm (Asad and Sadler-Smith, 2020; Koo and Park, 2018). CEOs are granted their powers through their position in the firm and their high level of authority and ownership (i.e legitimate power), their expertise in management (i.e expert power), and their reputation in an institutional setting (i.e prestige power) (Asad and Sadler-Smith, 2020; Kinicki and Fugate, 2018). As the firm’s performance is a reflection of its executives, powerful CEOs accordingly experience more success (Asad and Sadler-Smith, 2020; Hambrick and Mason, 1984).

The managerial expertise of executives is developed through their time as leaders,
thus the level of power in a firm is parallel to the length of their managerial tenure (Haynes et al., 2017; J. H. Park et al., 2018). A long-tenured CEO has experienced more success, which is often used to control the board since the strategic decision-making process involves CEO-board interaction (Duru et al., 2016; Koo and Park, 2018). The successful experiences also contribute to a strong bond of trust between the CEO and the board (Koo and Park, 2018; J. H. Park et al., 2018). Therefore a powerful CEO may lower the level of the board’s vigilance, which increases the possibilities of the CEO carrying out wealth-destroying projects or investments (Haynes et al., 2017; H. Park and Yoo, 2017; J. H. Park et al., 2018). In short, the increase in the CEO’s tenure is followed by an increase in the CEO’s power, which is linked to hubris and has a negative influence on the firm’s performance (Haynes et al., 2017; J. H. Park et al., 2018).

Besides the increasing tenure, it was found that CEOs’ ownership, in the form of share ownership, also significantly increased their executive power over the firm (Deb and Wiklund, 2017; Haynes et al., 2017). Ownership is a proxy of a CEO’s legitimate power in the firm, which can reduce the level of vigilance by the board (Deb and Wiklund, 2017; Kinicki and Fugate, 2018; J. H. Park et al., 2018). A CEO who owns shares may influence both the shareholders and the board (Deb and Wiklund, 2017; Haynes et al., 2017; J. H. Park et al., 2018). The CEO who serves both as the executive and as a shareholder may deceive the shareholders by acting as if his/her actions are in the interest of the shareholders, while actually pursuing no-value investments (Deb and Wiklund, 2017; Haynes et al., 2017; J. H. Park et al., 2018). In short, ownership increases a CEO’s opportunities to pursue non-value investments that may have a negative influence on the firm’s performance.

Both tenure and ownership allow a CEO the power to influence both the board and the shareholders. Consequently, the combination of legitimate and expert power is most likely to increase the level of hubris apparent in executives and thereby affect the firm’s financial performance (Kinicki and Fugate, 2018; J. H. Park et al., 2018). Drawing from the existing findings, this study developed its hypotheses based on the argument for tenure and ownership being the main indicators of the CEOs’ power, and this strengthens the negative influence of CEOs’ hubris on firms’ financial performance.

Board Vigilance’s Weakening Effect

Board vigilance’s role in corporate governance refers to the board members’ ability to monitor and discipline the company’s top executives (J. H. Park et al., 2018; Sewpersad, 2019). Previous studies found that weak board vigilance allowed top executives to challenge their board’s monitoring abilities and as a result, a negative outcome from hubris is inevitable (Duru et al., 2016; J. H. Park et al., 2018). Weak board-vigilance is indicated as a factor in CEO-duality, and the lack of outside directors’ representations (Hayward and Hambrick, 1997; J. H. Park et al., 2018).

Following Indonesia’s Constitutional Law No. 40 of 2007, a firm’s corporate governance must consist of three organs: a board of directors (BOD), a board of commissioners (BOC), and the shareholders, as presented in Figure 1. The model depicts the structure of corporate governance, the flow of communications, and the responsibilities each party has. Meanwhile one-tier corporate governance consists of a board of directors
who are responsible for monitoring both the CEO and the strategic decision-making process.

Concerning the board's vigilance, this corporate governance model is supposedly effective in repressing the level of hubris in executives, since it eliminates the CEOs' duality (Ali, 2018; J. H. Park et al., 2018). A previous study by J. H. Park et al., (2018) explored the effectiveness of independent directors, so, this study followed the same logic by exploring board vigilance through the BOC. The independent commissioners' ratio increases board vigilance by providing unbiased monitoring of the CEO, since they do not have any relation to anyone on the board (J. H. Park et al., 2018; Ramdani and Witteloostuijn, 2010; Tulung and Ramdani, 2018). Aside from the independent commissioners' ratio, this study proposed an alternative method for assessing board vigilance, by considering the size of the board of commissioners. According to studies about board effectiveness, a bigger board has more problem-solving capabilities, which are useful for determining strategic decisions (Ali, 2018; J. H. Park et al., 2018; Zubeltzu-Jaka et al., 2020). Drawing from the existed studies, this study developed hypotheses based on the argument that the independent commissioners' ratio and board size were the main indicators of board vigilance that weakened the influence of CEOs' hubris on firms' financial performance.

**Hypotheses Development**

**CEOs' Hubris and Firms' Performance**

There are two different views of CEOs' hubris: a positive point of view and a negative point of view. The positive view makes the argument that a dominant and powerful CEO is predominantly a hero, or a savior, who is key to the firm's success (Koo and Park, 2018; H. Park and Yoo, 2017; Zeitoun et al., 2019). In contrast, the negative view
argues that CEOs’ hubris is harmful to the firms’ performance since hubristic executives often pursue investments that are in their own self-interests and which can harm their firms’ performance (Claxton et al., 2015; Zhang et al., 2020). The two polarized views indicate that CEOs’ hubris is a double-ended sword, with no solid agreement as to whether it is contributive or detrimental to firm performance.

Therefore, following J. H. Park et al., (2018) we seek a neutral way of assessing hubris through the concept of managerial entrenchment, with a country-specific context. In a very active capital market, firms are exposed to enormous takeover pressures, in which poor-performing firms are often the victims of hostile acquisitions (J. H. Park et al., 2018). Thus, to satisfy a CEO’s main objective of keeping his/her position, hubristic CEOs focus on increasing their firms’ value and investing in profitable investments, such as innovations or product development, as a way to make sure they are not subject to a takeover (Hirshleifer et al., 2012; J. H. Park et al., 2018; Sadler-Smith et al., 2017). In short, in an active capital market, CEOs’ hubris is beneficial for firms’ performance.

Whereas in a weak capital market that does not impose any significant takeover threat, hubristic CEOs pursue their self-interest projects which can be detrimental to their firms’ performances (Haynes et al., 2017; J. H. Park et al., 2018). Hubristic CEOs with past successful experiences falsely believe that they have sufficient capabilities and accurate information to carry out their self-interest investments (J. H. Park et al., 2018). In short, under a weak capital market, CEOs’ hubris is detrimental to firm performance.

Following the approaches of the previous studies, Indonesia’s capital market is considered weak, as indicated by its M&A activity of only 5.4 percent, which is lower than the Asia-Pacific average of 10 percent, and it is much less developed (Bureau Van Dijk, 2017; Darmadi, 2013; Investment, 2017).

Under low external pressure, hubristic CEOs in Indonesia will entrench their positions by investing in non-value destroying projects that negatively influence their firms’ performance. Additionally, Indonesia’s high power distance and collectivist culture allows CEOs to have more control over decision making, which motivates them to pursue non-value investments that negatively influence their firms’ performance (Koo and Park, 2018; Tulung and Ramdani, 2018). Therefore, this study developed its first hypothesis as follows:

**Hypothesis 1** CEOs’ hubris negatively influences firms’ performance in Indonesia.

**CEOs’ Tenure**

A CEO’s tenure is defined as the length of time spent by an individual working in the role of the CEO of a firm (McClelland et al., 2012). As the tenure increase, the CEO acquires more managerial expertise in aligning resources and strategy decisions for the firm (Sewpersadh, 2019; Wang et al., 2016). Managerial expertise is also used in determining the actions taken by a CEO, thus affecting the effectiveness of their leadership of the firm (Carter and Greer, 2013; Sewpersadh, 2019). Referring to the source of hubris as media praise and awards, a CEO with a long tenure expectedly has more successful experiences and much media approval, which increases their level of confidence (Hayward
An experienced CEO is more valuable than a new one as he/she has proven their expertise, this results in trust from the board and shareholders (Haynes et al., 2017; Sewpersadh, 2019). Taken together, a long-tenured CEO who has more successful experiences will be more powerful than a newly appointed one. Therefore, new CEOs have to make a greater effort to demonstrate their expertise, to gain the trust of their boards and avoid dismissal.

To gain trust from their boards and shareholders, newly appointed CEOs will be more likely to try to accomplish higher levels of strategic actions, which result in significant changes in their firms, than their longer-tenured counterparts would do (Haynes et al., 2019; McClelland et al., 2012; Sewpersadh, 2019). However, longer-tenured CEOs are more skilled in managerial expertise and have a higher network centrality for obtaining crucial information (El-Khatib, Fogel and Jandik, 2015; Haynes et al., 2017). Long-tenured CEOs, with a high level of trust from their boards, will negatively affect their firms’ performances since the boards cannot exercise impartial monitoring (Haynes et al., 2019; Sewpersadh, 2019). Therefore it can be argued that a long-tenure CEO has more trust from both the shareholders and the board, which allows the CEO to pursue value-destroying investments that negatively influence the firm’s performance. Therefore, this study developed the second hypothesis as follows:

**Hypothesis 2a** CEOs’ tenure positively moderates the negative influence of CEOs’ hubris on firms’ performance in Indonesia. The longer the CEO’s tenure, the stronger the negative influence of the CEO’s hubris is on the firm’s performance.

**CEOs’ Ownership**

Aside from the power obtained from the organizational structure, executives gain power from share ownership. A CEO’s share ownership in a firm significantly affects the decision-making process (Deb and Wiklund, 2017; Sewpersadh, 2019). In the two-tier system of corporate governance, where shareholders can appoint every board member, executives with significant share ownership have greater control over the shareholders and the boards (Deb and Wiklund, 2017; Sewpersadh, 2019; World Bank, 2014). Moreover, by being part of the shareholders, hubristic CEOs are less likely to face dismissal.

CEOs’ share ownership is ideal for hubris to thrive since a CEO can then influence both the shareholders and the board (J. H. Park et al., 2018; Sewpersadh, 2019). These CEOs can form a strong bond of trust with their boards and lower the level of their supervision (Haynes et al., 2017; McClelland et al., 2012). This situation increases the likelihood of CEOs carrying out value-destroying investments that negatively affect their firms’ performance (Deb and Wiklund, 2017; Haynes et al., 2017). Therefore, this study argues that share ownership allows CEOs to have a strong influence over their boards and shareholders, which allows them to pursue value-destroying investments that are harmful to the firms’ performance in Indonesia. Therefore, this study developed the third hypothesis as follows:

**Hypothesis 2b** CEOs’ ownership positively moderates the negative influence of the CEOs’ hubris on firms’ performance in Indonesia. The higher the CEO’s share ownership percentage is in the firm, the stronger is the negative influence of the CEO’s hubris on the firm’s performance.
Independent Commissioners’ Ratio

The initial study by Hayward and Hambrick (1997) found that board independence significantly affects the vigilance level among the members. The BOC, which has the responsibility for monitoring the CEO and the BOD, finds its vigilance increases when there is an independent commissioner (Otoritas Jasa Keuangan, 2014; Tulung and Ramdani, 2018; Zubeltzu-Jaka et al., 2020). According to the Indonesian Financial Services Authority (OJK) Regulation No. 33/POJK.04.2014, the ratio of independent commissioners in public firms must be at least 30 percent of the total membership of the BOC, and they must be without any affiliations within the firm (Otoritas Jasa Keuangan, 2014).

In the case of monitoring, independent commissioners are likely to increase the vigilance of the BOC by being unbiased, since they are not affiliated with the firm and therefore can do a better job monitoring the CEO and BOD (Sewpersadh, 2019; Tulung and Ramdani, 2018). Accordingly, since the BOC relies heavily on the firm’s financial performance in supervising the BOD, the presence of outside commissioners subjects the firm to stricter monitoring and thus effectively controls any hubris (J. H. Park et al., 2018; Sewpersadh, 2019; Tulung and Ramdani, 2018). BOC members can exert control by disapproving the investment proposals that may seem to add no value to the firm’s performance (J. H. Park et al., 2018; World Bank, 2014).

In addition, the presence of an independent commissioner eliminates the possibility of “groupthink” in the BOC, hence making the monitoring more unbiased (Kinicki and Fugate, 2018; Tulung and Ramdani, 2018; Zubeltzu-Jaka et al., 2020). Therefore, this study argues that the presence of an independent commissioner weakens the negative influence of the CEO’s hubris on the firm’s performance in Indonesia by providing impartial monitoring of the CEO and BOD (J. H. Park et al., 2018; Tulung and Ramdani, 2018). Therefore, this study developed a fourth hypothesis as follows:

Hypothesis 3a Independent commissioners’ ratio negatively moderates the negative influence of CEOs’ hubris on their firms’ performance in Indonesia. The higher the independent commissioners ratio is on the BOC, the weaker will be the negative influence of the CEO’s hubris on the firm’s performance.

Commissioners’ Board Size

A past study discovered board vigilance, in the form of independent directors’ representatives, controlled the negative effects of hubris on firms’ performance (J. H. Park et al., 2018). However, this investigation did not consider that the number of independent directors’ representatives is determined by the board’s size (Otoritas Jasa Keuangan, 2014). The development of a firm is trailed by the complexity of its functions, which requires a bigger board comprising of members with different expertise and skills (Ali, 2018; Sewpersadh, 2019). Bigger boards comprising of various experts are better at advising the firm’s management and reducing the CEO’s power gained through his/her long tenure (Tulung and Ramdani, 2018; Zubeltzu-Jaka et al., 2020).

Previous studies found firms with independent boards have positive firm performance and a decreased likelihood of suffering from financial difficulties (Sewpersadh, 2019; Tulung and Ramdani, 2018). Firms with larger boards and more independent
directors are better at handling complex data and have better monitoring of the CEO and board (Ali, 2018). The problem that often arises with a CEO’s hubris is that the CEO often pursues investments for his/her self-interest, at the shareholders’ expense (Haynes et al., 2017; J. H. Park et al., 2018). Since the BOC is more independent, it can exercise rigorous monitoring and easily detect a CEO’s non-value investment initiatives (Duru et al., 2016; Tulung and Ramdani, 2018). In short, a large BOC with wide ranging knowledge and skills is effective in monitoring and preventing CEOs from pursuing investments in their own interests. In summary, a bigger BOC, whose members have different knowledge and skills, is effective in monitoring a CEO’s initiatives, and can weaken the negative influence of a CEO’s hubris on the firm’s performance. Therefore, this study developed a fifth hypothesis as follows:

**Hypothesis 3b** The size of the BOC negatively moderates the negative influence of the CEO’s hubris on the firm’s performance in Indonesia. The bigger the size of the BOC, the weaker the negative influence of the CEO’s hubris is on the firm’s performance.

Figure 2 depicts the conceptual model of this study.

**Methods**

**Sample and Data Collection**

This study observed public firms listed on the KOMPAS100 February 2017 Index, which includes the 100 firms with the most liquid stocks and the largest market capitalization; this covers 70 to 80 percent of the total market capitalization of the Indonesia Stock Exchange (PT Bursa Efek Indonesia, 2018). This index was especially chosen to observe whether the establishment of the ASEAN Economic Community (AEC) imposed a threat to Indonesia’s capital markets (International Financial Law Review, 2018). The weak capital markets and the external
threat are interesting to observe since the influence of the CEOs’ hubris on firms’ performance is highly dependent on the capital markets’ conditions (J. H. Park et al., 2018). In collecting the relevant information, this study relied on secondary data obtained from the Indonesia Stock Exchange (IDX), and firms’ annual reports, which are available on the firms’ websites. One firm was eliminated because of our inability to obtain its annual report.

Variables and Measures

Dependent Variable

In this study, the dependent variable was firm performance, measured as the return on assets (ROA). ROA is an industry-dependent indicator of how efficient a firm is at managing its assets to generate earnings. Accordingly, a higher ROA means greater assets’ efficiency. The previous study conducted by J. H. Park et al., (2018) used a two-year adjusted return on assets (Ad-ROA) by subtracting the firm’s ROA from the industry median ROA for each year and then averaging it. However, due to our inability to obtain the industry median ROA data, this cross-sectional study only observed each firm’s ROA for the year 2017.

Independent Variable

Following the study by J. H. Park et al., (2018) on the “unobtrusive” index of CEOs’ hubris, this study relied on secondary data to avoid bias in the measurement. The CEOs’ hubris measurement in this study followed two hubris indicators of Park et al., (2018), which were awards and overconfidence. The media praise’s measurement was disregarded due to the inability to obtain an accurate measurement method.

The awards indicator measured the total amount of awards and certifications received by the CEOs in 2017 (J. H. Park et al., 2018). The data for awards and certifications were obtained from the annual reports. The CEOs’ overconfidence indicator was analyzed by using the DICTION application and calculated following the hubris formula of Armenic et al., (2010, p. 60):

\[ Hubris = praise + accomplishment + tenacity \]

Finally, the CEOs’ hubris measure was the sum of the awards and certifications given and the result of the DICTION application’s analysis.

Moderating Variables

This study had four moderating variables of CEOs’ tenure, CEOs’ ownership, independent commissioners’ ratio and commissioners’ board size. CEOs’ tenure was measured as the number of years each CEO held the position in the firm (Sewpersadh, 2019). CEOs’ ownership was measured as the percentage of shares each CEO owned in the firm (Combs et al., 2007). The independent commissioners’ ratio was measured as the ratio of independent commissioner members among all the members of the BOC (J. H. Park et al., 2018). Commissioners’ board size was measured as the total number of commissioners on the BOC.

Control Variables

This study used three control variables namely: firm size, leverage ratio, and CEOs’ succession. Each firm’s size was measured as the natural log (i.e ln) of the firm’s total assets at the end of the observed fiscal year. The leverage ratio was measured as the debt-to-equity ratio of the firm in the observation year. The CEOs’ succession was controlled to avoid bias since a change in CEO
may have a significant influence on a firm’s performance (Huson et al., 2004; Sewpersadh, 2019). CEOs’ succession was coded as 1 if the CEO was newly appointed and 0 otherwise.

**Analysis**

This study first measured the independent variable of CEOs’ hubris by adding up the number of awards and certifications from the results of the DICTION analysis. Afterward, hierarchical regression analyses were performed to test the proposed hypotheses. The first regression analysis consisted of three regression models (model 1, model 2, model 3). Model 1 was the baseline model and consisted of the control variables. Model 2 was developed to test Hypothesis 1 in predicting the negative influence of CEOs’ hubris on firms’ performance in Indonesia. Models 3 and 4 examined the positive moderating effects of CEOs’ tenure and CEOs’ ownership, as formulated in hypotheses 2a and 2b. Models 5 and 6 examined the negative moderating effects of the independent commissioners’ ratio and commissioners’ board size, as formulated in hypotheses 3a and 3b.

The validity of the hypotheses testing results were confirmed by a robustness test, in which additional regressions were carried out to find out whether the results changed under different circumstances, this would confirm the structural validity of the research (Lu and White, 2014). First, the 39 samples that were included in the CEOs’ succession cases were eliminated. Then, the remaining 60 samples were analyzed using hierarchical regression analyses. The results from the hypotheses testing and robustness testing were compared to check whether the new mea-

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**Figure 3. Data Analysis Flow Diagram**
measurements caused a change in the significance levels or the direction of the coefficients of the predictor variables (Lu and White, 2014; J. H. Park et al., 2018). Multicollinearity was assessed using the variance inflation factors (VIFs) score. A VIF value below the threshold of 10 and a tolerance value higher than 0.1 were acceptable (Hair Jr. et al., 2014). Figure 3 illustrates the data analysis process conducted in this study.

**Results**

Table 1 shows the descriptive statistics and correlations among the variables included in this study. The descriptive statistics show that the average ROA was 5.7 percent; the average CEO's tenure was 6.5 years, and the average share ownership a CEO had in a firm was 0.59 percent. The average ratio of independent commissioners was 41 percent, and the average size of the BOC was five persons. The average firm size in this study was ln 14.57 while the average leverage ratio was 4.29 times, and 39 of the sample’s firms had new CEOs.

Table 2 provides the results of the hypotheses testing. Model 1 was the baseline model, only consisting of the control variables. Model 2 was developed to test Hypothesis 1 predicting the negative influence of CEOs’ hubris on firms’ financial performance in Indonesia. Models 3 and 4 examined the moderating role of CEOs’ power (tenure and ownership) as stated in hypotheses 2a and 2b. Models 5 and 6 examined the moderating role of the boards’ vigilance (independent commissioners’ ratio and the size of the BOC) as stated in hypotheses 3a and 3b.

Model 2 revealed a positive and significant relationship between CEOs’ hubris and firms’ performance ($\beta = 0.249; p < 0.05$), which does not support Hypothesis 1. Second, the moderating effect of CEOs’ tenure in model 3 was not significant, failing to support Hypothesis 2a. The moderating effect of CEOs’ ownership in model 4 was not significant, failing to support Hypothesis 2b. Thus, CEOs’ power does not have any significant moderating effects.

The moderating effect of the independent commissioners’ ratio in model 5 was not significant, failing to support Hypothesis 3a. Finally, the size of the BOC was found to
strengthen the positive influence of CEOs’ hubris on firms’ performance ($\beta = 0.191; p < 0.1$). The moderating effects are depicted in Figure 4 below.

Table 2. Results of Hierarchical Regression Analysis

| Variables                                | Model 1  | Model 2  | Model 3  | Model 4  | Model 5  | Model 6  |
|------------------------------------------|----------|----------|----------|----------|----------|----------|
| **Testing variables**                    |          |          |          |          |          |          |
| CEO Hubris                               | 0.249**  | 0.233**  | 0.233**  | 0.248**  | 0.273**  |          |
| CEO Hubris x CEO Tenure                  | -0.025   |          |          |          |          |          |
| CEO Hubris x CEO Ownership               | -0.052   |          |          |          |          |          |
| CEO Hubris X Independent Commissioner Ratio | -0.004   |          |          |          |          |          |
| CEO Hubris X Commissioner Board Size     |          |          |          |          |          | 0.191*   |
| **Control variables**                    |          |          |          |          |          |          |
| Firm Size                                | -0.174*  | -0.166*  | -0.166   | -0.163   | -0.165   | -0.165   |
| Leverage Ratio                           | -0.056   | -0.056   | -0.057   | -0.053   | -0.056   | -0.045   |
| CEO Succession                           | 0.033    | 0.037    | 0.031    | 0.045    | 0.039    | 0.025    |
| CEO Tenure                               |          |          |          |          |          | -0.016   |
| CEO Ownership                            |          |          |          |          |          | 0.114    |
| Independent Commissioner Ratio           |          |          |          |          |          | 0.011    |
| Commissioner Board Size                  |          |          |          |          |          | -0.048   |
| $R^2$                                    | 0.033    | 0.095    | 0.096    | 0.106    | 0.095    | 0.127    |
| F                                        | 1.078    | 2.465    | 1.62     | 1.811    | 1.611    | 2.234    |

* $p < 0.1$; ** $p < 0.05$

**Robustness Test**

To ensure the validity of the results, additional regressions were performed to assess

Figure 4. Firm Performance and CEO Hubris Moderated by Commissioner Board Size
the robustness of the reported results. Following J. H. Park et al., (2018), the sample was reduced to the cases where there had been no change in the CEO's position. Thirty-nine firms that had changed CEOs were eliminated, leaving a sample consisting of only 60 firms. The aim was to find whether there was a change in the results for the main variables and the moderators after eliminating some of the sample and one control variable in the regression (Lu and White, 2014). The results of the additional hierarchical regression analysis revealed that the new measurements did not make a difference to the level of significance and the coefficient's direction for the independent and moderator variables. In conclusion, the hypotheses' testing results were valid.

Discussion

This study aimed to investigate the negative influence of CEOs’ hubris on firms’ performance in Indonesia, and the moderating effect of CEOs’ power indicated by their tenure and ownership, and board vigilance indicated by the independent commissioners’ ratio and the size of the BOC. This study offered two conclusions: (1) CEOs’ hubris positively influenced firms’ performances in Indonesia. (2) Board vigilance, in the form of the size of the BOC, was found to be effective in increasing the positive influence of the CEOs’ hubris over their firms’ performances.

First, this study found that CEOs’ hubris had a positive effect on firms’ performance in Indonesia. Hubris can either be detrimental or productive to a firm’s performance depending on the capital markets’ conditions (J. H. Park et al., 2018). The positive result is quite interesting as the previous study by J. H. Park et al., (2018) found that in a weak capital market hubristic CEOs entrenched their positions by pursuing self-interest projects that contributed to their firms’ negative performances. However, this argument does not apply in Indonesia according to the empirical findings in this study.

This interesting result is caused by the ASEAN Economic Community that posed a significant external threat to Indonesian firms. Faced with the high external pressure of takeovers, hubristic CEOs in this study entrenched their positions by increasing their firms’ value (Hirshleifer et al., 2012; J. H. Park et al., 2018). In addition, the sample firms’ average length of tenure for their CEOs of 6.5 years indicated that most CEOs in this study only served for one leadership period and either quit or were dismissed during their second. Thus, these CEOs needed to gain the trust of their boards by making more investments that would enhance their firms’ future performance (McClelland et al., 2012; J. H. Park et al., 2018).

Moreover, Indonesian culture emphasizes a high power distance and collectivism within the culture (Koo and Park, 2018; Suhoyo et al., 2014). Although a CEO has the highest position in the management team, Indonesia’s collectivist cultural dimension limits the CEO from being overconfident, to the extent that they rarely can claim “I did this,” as is often exhibited in Western culture (Koo and Park, 2018). Within a culture that focuses on collectivism, a good relationship among each board member is very important, thus, a CEO must be accepted by the boards of directors and commissioners (Koo and Park, 2018; J. H. Park et al., 2018; Suhoyo et al., 2014). In other words, a CEO must belong to the firm and be accepted by the boards; some of the CEOs in this study might be considered to be “new additions” by the boards and need to prove their capabilities to be accepted. Hence, CEOs’ hu-
bris in this study resulted in positive influences on their firms’ performance.

The empirical results in this study showed that neither CEOs’ tenure nor CEOs’ ownership imposed any statistical significance when moderating the influence of hubris on firms’ performance in Indonesia; although it was argued that the increase in managerial capabilities during the year increased the CEOs’ power in the firms (Kinicki and Fugate, 2018; Wang et al., 2016). The empirical finding in this study found that tenure does not increase the CEOs’ power. The average tenure of Indonesian CEOs in this study was about 6.5 years, whereas the previous study in South Korea found it to be 3.5 years (J. H. Park et al., 2018). Despite the higher average length of tenure and data spread, non-significant results were found in both studies. It is not clear why tenure is not significant, likewise the previous study by J. H. Park et al., (2018) cannot explain this finding. Thus, this finding implies that tenure is not a suitable measurement of CEOs’ power.

Moreover, the insignificant result for the variable CEOs’ ownership was due to the very small share percentage the CEOs owned in this study. As presented in Table 1, the average percentage of CEOs’ ownership was 0.59 percent, which is very low in comparison to the study by J. H. Park et al., (2018) which found ownership to be 38.2 percent. The sample used by J. H. Park et al., (2018) consisted of blockholder CEOs who owned more than five percent of the shares and were members of the founder families (i.e. Chaebol), hence their high share percentage. Therefore, share ownership’s percentage is not an appropriate measurement of CEOs’ power for Indonesian firms, since most Indonesian CEOs only own a very small percentage of the shares in their firms.

The empirical results in this study showed that the independent commissioners’ ratio did not significantly moderate the positive influence of hubris on firms’ performance in Indonesia. The insignificant result is quite interesting since the sample data’s mean value of 41.14 percent and a standard deviation of 13.10 percent were higher than the previous study (M = 0.318, SD = 0.149) (J. H. Park et al., 2018). One possible cause of this insignificance is because an increase in the size of the BOC is not always followed by an increase in the number of independent members, to maintain the 30 percent level as required by the OJK. This argument is further strengthened by the Pearson correlation’s result between the independent commissioners’ ratio and the commissioners’ board size (r = -0.122, p > 0.05). Moreover, the independent commissioners’ data in this study ranged from 17 percent to 80 percent, which meant that there were firms which had less than the required 30 percent of independent commissioners.

This study found board vigilance, in the form of the size of the BOC, was effective in increasing the positive influence CEOs’ hubris had on firms’ performance. Initial studies had only considered board vigilance in the form of CEO-duality and the independent directors’ representation (J. H. Park et al., 2018) on the boards, without taking into account the boards’ sizes. This study proved that a bigger BOC was effective in preventing the CEOs from pursuing non-value investments.

A bigger BOC is more independent in exercising rigorous monitoring and helping the CEO with the strategic decision-making process, to make sure that every investment will yield positive results. Thus, when hubris contributes to firm performance, a vigilant
board significantly increases the positive influence of hubris. In addition, some of the sample’s CEOs only served for one period, in which they had to gain their boards’ trust. These new CEOs, who lacked power, were under constant pressure to prove their capabilities to their boards and shareholders. This finding specifically explains that a bigger board is important for the growth of firms and for preventing the financial distress that often comes from a CEO’s hubris.

Conclusion

This study agrees that CEOs’ hubris research must be approached by taking into account the country-specific context (J. H. Park et al., 2018). The establishment of the AEC was initially thought not to pose any significant threats to the Indonesian capital markets, yet it imposed such a threat that hubristic CEOs secured their positions by efficiently managing their firms’ ROA as an anti-takeover strategy. This maneuver produced a positive influence on their firms’ performances and such external threats must be taken into account when approaching CEOs’ hubris. The results also indicate that Indonesian CEOs should be more hubristic, in other words, these CEOs should be more confident in their decision-making abilities when taking on big projects and investments, since they will contribute to the shareholders’ wealth. In addition, the financial authorities and the Government of Indonesia (GoI) should put more effort into making the capital markets more active. This would motivate the CEOs to manage their firms’ assets and profits more efficiently, and thus, more people will invest in Indonesian firms.

Second, board vigilance is indeed important in managing CEOs’ hubris. Specifically, this study found a large BOC strengthens the positive influence of CEOs’ hubris; although agency theorists argue that a big board is inefficient. However, this study found that a large BOC is effective in managing the positive influence of CEOs’ hubris. A big board with members from various disciplines and with varied knowledge is effective in preventing CEOs from pursuing value-destroying investments, and they can easily monitor and identify the CEOs’ motives. All in all, the results of this study shed some light on widening the CEOs’ hubris research stream by providing external validity and a different approach to investigating CEOs’ hubris in the two-tier corporate governance setting.

Limitation

Although this study explored the influence of CEOs’ hubris on firms’ performance in Indonesia by considering the moderating variables of CEOs’ power and board vigilance, this study faced several limitations and thus suggests some useful recommendations for future research. First, this study disregarded the CEOs’ media praise in obtaining the CEOs’ hubris measure, as explained in the section covering the research method. Based on the initial study by Hayward and Hambrick (1997), CEOs’ hubris is formally built on the three indices: media praise, awards given, and the CEOs’ self-confidence. Therefore, to obtain an impartial measurement of CEOs’ hubris, a situational assessment in the form of the media’s reaction is necessary.

Second, in capturing CEOs’ power, this study only relied on the previous approach used in the study by Park et al., (2018). CEOs’ power comes from their position and expertise, therefore the power indicator may be approached through observable upper echelon characteristics such as age, education,
and career experiences, to open new research grounds for the CEOs’ hubris research stream.

All in all, future studies should explore more determinants that can capture hubris, CEOs’ power, and boards’ vigilance in a more sophisticated manner; therefore, the external validity of the CEOs’ hubris theory could be further strengthened.

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## Appendix

### Diction Result

| No. | Unique Words | Numerical Terms | Ambivalence | Self-reference | Tenacity | Leveling Terms | Collectives | Praise | Satisfaction |
|-----|--------------|-----------------|-------------|----------------|----------|----------------|-------------|--------|--------------|
| 1   | 580          | 0.18            | 8.97        | 4.06           | 1.5      | 135.05         | 0.25        | 11.38  | 4.53         |
| 2   | 332          | 5.11            | 8.65        | 6.00           | 1        | 110.42         | 0.00        | 6.15   | 18.44        |
| 3   | 431          | 0.73            | 9.89        | 3.96           | 5.15     | 125.9          | 0.59        | 1.5    | 4.43         |
| 4   | 1,384        | 0.65            | 1.60        | 6.23           | 1.69     | 115.53         | 0.03        | 11.51  | 3.03         |
| 5   | 254          | 0.62            | 10.54       | 14.36          | 1.5      | 138.00         | 2.50        | 8.18   | 2.50         |
| 6   | 67           | 7.09            | 9.97        | 5.75           | 0        | 120.69         | 0.00        | 5.75   | 9.65         |
| 7   | 138          | 0.00            | 6.69        | 0.00           | 1.67     | 132.11         | 1.67        | 3.34   | 14.52        |
| 8   | 1,073        | 1.26            | 6.16        | 3.88           | 2.26     | 126.13         | 0.44        | 5.51   | 3.39         |
| 9   | 632          | 2.22            | 4.98        | 5.7            | 2        | 128.49         | 0.50        | 7.23   | 11.22        |
| 10  | 134          | 0.48            | 14.29       | 10.2           | 0        | 128.57         | 4.08        | 12.24  | 6.12         |
| 11  | 1,589        | 1.22            | 2.28        | 11.68          | 7.27     | 115.53         | 36.28       | 10.99  | 2.51         |
| 12  | 219          | 1.78            | 16.43       | 2.00           | 4.17     | 117.71         | 1.04        | 11.46  | 3.12         |
| 13  | 671          | 1.41            | 7.77        | 9.05           | 3.75     | 134.04         | 1.56        | 6.31   | 3.56         |
| 14  | 26           | 0.00            | 15.62       | 15.62          | 31.25    | 125.00         | 0.00        | 0.00   | 10.62        |
| 15  | 1,229        | 5.85            | 16.93       | 5.78           | 3.02     | 144.32         | 2.81        | 4.55   | 6.31         |
| 16  | 256          | 0.5             | 9.50        | 0.00           | 1        | 66.00          | 0.00        | 4.47   | 44.67        |
| 17  | 1,876        | 7.26            | 4.20        | 13.59          | 1.53     | 146.72         | 8.00        | 2.89   | 4.51         |
| 18  | 178          | 2.55            | 19.13       | 2.73           | 2.73     | 139.34         | 2.73        | 8.20   | 11.86        |
| 19  | 147          | 11.28           | 17.11       | 7.45           | 0        | 127.38         | 0.00        | 3.80   | 3.80         |
| 20  | 79           | 3.6             | 17.99       | 10.79          | 3.6      | 133.09         | 0.00        | 7.19   | 10.79        |
| 21  | 1,400        | 0.56            | 7.48        | 3.8            | 3.9      | 128.15         | 7.02        | 4.47   | 4.26         |
| 22  | 320          | 4.52            | 12.17       | 5.09           | 9.76     | 101.56         | 0.00        | 7.09   | 9.51         |
| 23  | 183          | 1.43            | 13.22       | 2.87           | 0        | 118.91         | 1.43        | 11.46  | 11.46        |
| 24  | 369          | 1.68            | 11.45       | 7.61           | 8.74     | 126.98         | 0.50        | 7.24   | 5.37         |
| 25  | 683          | 2.64            | 7.08        | 4.81           | 1.25     | 120.62         | 3.94        | 8.13   | 8.33         |
| 26  | 465          | 0.75            | 3.47        | 3.48           | 1.5      | 150.08         | 0.25        | 3.25   | 3.75         |
| 27  | 377          | 0.00            | 6.19        | 5.23           | 0.5      | 144.49         | 0.50        | 6.59   | 10.05        |
| 28  | 1,207        | 0.82            | 131.63      | 2.71           | 0.59     | 191.47         | 0.81        | 3.66   | 2.63         |
| 29  | 197          | 1.15            | 21.39       | 3.45           | 2.3      | 140.23         | 3.45        | 9.19   | 6.90         |
| 30  | 681          | 0.85            | 13.74       | 1.99           | 1.12     | 128.06         | 0.50        | 4.50   | 3.96         |
| 31  | 143          | 2.27            | 4.48        | 0.00           | 1.84     | 123.16         | 7.35        | 5.51   | 3.68         |
| 32  | 636          | 1.79            | 8.32        | 5.87           | 2.13     | 129.43         | 0.50        | 6.01   | 4.68         |
| 33  | 587          | 5.69            | 9.60        | 7.35           | 2.5      | 139.32         | 1.11        | 3.11   | 1.17         |
| 34  | 528          | 0.54            | 7.98        | 9.02           | 2.25     | 136.08         | 0.25        | 3.50   | 5.93         |
| 35  | 171          | 0.50            | 5.95        | 1.49           | 0        | 156.25         | 0.00        | 7.44   | 5.48         |
| 36  | 325          | 0.50            | 4.75        | 3.35           | 6.2      | 129.11         | 0.00        | 6.70   | 4.19         |
|   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| 37 | 1,318 | 1.32 | 7.45 | 8.77 | 1.25 | 115.26 | 3.01 | 4 | 3.31 |
| 38 | 574 | 11.34 | 6.5 | 3.44 | 2.25 | 127.25 | 0.75 | 3.5 | 2.83 |
| 39 | 342 | 3.33 | 13.03 | 1.5 | 2.61 | 143.72 | 5.43 | 4 | 2.34 |
| 40 | 1,009 | 3.21 | 5.49 | 6.55 | 2.94 | 154.42 | 0.94 | 7.53 | 3.73 |
| 41 | 123 | 5.33 | 6.64 | 6.64 | 2.21 | 163.72 | 4.43 | 4.43 | 5.93 |
| 42 | 495 | 1.76 | 7.81 | 6.54 | 4.53 | 122.16 | 0.5 | 5.05 | 9.38 |
| 43 | 471 | 4.3 | 5.81 | 6.23 | 2 | 111.01 | 1.76 | 7.55 | 12.93 |
| 44 | 363 | 3.62 | 7.93 | 7.93 | 0 | 167.04 | 3.81 | 4.25 | 4.15 |
| 45 | 1,262 | 2.34 | 6.03 | 6.49 | 0.31 | 126.86 | 10.92 | 4.05 | 2.52 |
| 46 | 448 | 1.95 | 9.98 | 5.94 | 3.99 | 105.49 | 0 | 8.48 | 5.32 |
| 47 | 501 | 0.6 | 5.94 | 3.48 | 1 | 119.81 | 1.75 | 3.25 | 10.19 |
| 48 | 1,418 | 2.6 | 6.84 | 4.72 | 0.77 | 147.68 | 1.88 | 4.7 | 4.95 |
| 49 | 692 | 3.74 | 14.49 | 7.26 | 2.53 | 133.66 | 2.07 | 10.18 | 4.04 |
| 50 | 1,295 | 4.18 | 11.49 | 5.33 | 3.41 | 119.41 | 2.26 | 6.98 | 3.65 |
| 51 | 704 | 0.9 | 4.58 | 1.73 | 1.25 | 136.43 | 0.88 | 3.12 | 9.41 |
| 52 | 2,915 | 3.36 | 5.09 | 3.38 | 0.26 | 140.3 | 0.8 | 5.92 | 2.96 |
| 53 | 129 | 2.83 | 17.74 | 11.47 | 0 | 121.56 | 0 | 6.88 | 3.85 |
| 54 | 269 | 0.35 | 5.22 | 12.04 | 2.5 | 160.53 | 1.5 | 7 | 6 |
| 55 | 137 | 0 | 4.55 | 4.55 | 4.55 | 128.79 | 0 | 10.61 | 7.09 |
| 56 | 213 | 2.02 | 17.2 | 2.15 | 0 | 144.09 | 1.08 | 7.53 | 10.75 |
| 57 | 529 | 8.96 | 3.68 | 2.98 | 1.75 | 137.32 | 0.25 | 6.1 | 6.6 |
| 58 | 854 | 1.89 | 6.24 | 3.33 | 1.5 | 138.03 | 0.12 | 5.29 | 8.6 |
| 59 | 1,100 | 4.11 | 6.41 | 6.72 | 1.12 | 147.77 | 0.81 | 5.9 | 3.45 |
| 60 | 1,374 | 2.04 | 4.34 | 4.53 | 2.22 | 126.03 | 3.6 | 3.81 | 3.72 |
| 61 | 155 | 1.32 | 5.22 | 6.89 | 1.4 | 116.25 | 0 | 16.81 | 5.15 |
| 62 | 190 | 3.1 | 29.41 | 12.38 | 1.55 | 111.46 | 3.1 | 4.64 | 5.7 |
| 63 | 485 | 0.75 | 4.73 | 3.25 | 2.75 | 109.5 | 0.5 | 4.75 | 34.98 |
| 64 | 243 | 1.12 | 4.53 | 3 | 2 | 63 | 1.5 | 2.5 | 25 |
| 65 | 372 | 7.14 | 4.07 | 2 | 3.07 | 113.89 | 0 | 6.14 | 11.43 |
| 66 | 238 | 0 | 9.34 | 7.69 | 2.2 | 117.58 | 3.3 | 6.59 | 4.04 |
| 67 | 845 | 2.41 | 7.05 | 6.25 | 3.12 | 147.49 | 0.25 | 4.86 | 4.32 |
| 68 | 110 | 2.23 | 2.23 | 2.23 | 4.46 | 133.93 | 4.46 | 4.46 | 4.46 |
| 69 | 582 | 12.45 | 11.06 | 6.27 | 8.07 | 140.68 | 0.5 | 6.02 | 9.24 |
| 70 | 283 | 1.5 | 10.45 | 4 | 1.5 | 107.55 | 2.5 | 3.5 | 12.15 |
| 71 | 743 | 0.4 | 10.49 | 9.8 | 5.32 | 138.49 | 1.97 | 2.25 | 4.35 |
| 72 | 796 | 3.28 | 8.77 | 5.81 | 0.75 | 160.91 | 0.25 | 7.5 | 4.22 |
| 73 | 64 | 8.53 | 4.27 | 0 | 0 | 156.98 | 0 | 0 | 0 |
| 74 | 804 | 2 | 5.67 | 4.47 | 4.5 | 151.61 | 0 | 5.56 | 5.15 |
| 75 | 1,327 | 2.12 | 10.51 | 5.62 | 2.85 | 232.29 | 0.69 | 2.85 | 8.51 |
| 76 | 290 | 6.05 | 7.18 | 5 | 5.93 | 134.47 | 1.5 | 4.31 | 4.62 |
| 77 | 677 | 2.12 | 9.81 | 5.76 | 0.56 | 136.16 | 1.06 | 6.07 | 3.43 |
| No. | Inspiration | Blame | Hardship | Aggression | Achievement | Communication | Cognition | Passivity | Spatial Terms | Familiarity |
|-----|-------------|-------|----------|------------|-------------|---------------|-----------|-----------|---------------|-------------|
| 1   | 1.43        | 1.36  | 6.72     | 15.31      | 3.47        | 1.43          | 11.92     | 23.48     | 1.5           | 38.24       |
| 2   | 0.5         | 3     | 3.87     | 17.77      | 8.3         | 0             | 13.35     | 33.47     | 1             | 31.79       |
| 3   | 2.78        | 0.5   | 3.78     | 5.91       | 2.18        | 0.59          | 23.46     | 59.39     | 3.96          | 37.05       |
| 4   | 3.04        | 0.36  | 6.49     | 9.84       | 6.25        | 2.36          | 20.07     | 26.37     | 1.63          | 25.46       |
| 5   | 2.5         | 0     | 2.25     | 10.18      | 1           | 1.5           | 49.27     | 24.75     | 4             | 47.23       |
| 6   | 5.75        | 0     | 11.45    | 5.75       | 0           | 0             | 17.24     | 11.49     | 17.24         | 31.14       |
| 7   | 0           | 0     | 1.67     | 13.77      | 1.67        | 0             | 23.41     | 33.44     | 1.67          | 40.13       |
| 8   | 1.41        | 0     | 3.82     | 5.22       | 0.69        | 0.91          | 16.57     | 48.92     | 2.1           | 39.5        |
| 9   | 5.15        | 1.83  | 10.72    | 11.63      | 7.3         | 1.58          | 22.58     | 19.9      | 2.83          | 44.57       |
| 10  | 2.04        | 0     | 2.04     | 20.41      | 4.08        | 2.04          | 8.16      | 18.37     | 3.37          | 55.1        |
| 11  | 10.98       | 0.57  | 3.55     | 3.69       | 0.91        | 0.98          | 14.96     | 21.36     | 0.85          | 26.96       |
| 12  | 3.12        | 0     | 1.04     | 12.5       | 3.12        | 0             | 17.71     | 56.25     | 0             | 46.88       |
| 13  | 3.37        | 0.65  | 3.71     | 9.63       | 2.56        | 1.31          | 29.31     | 23.3      | 1.25          | 39.69       |
| 14  | 0           | 0     | 15.62    | 0          | 31.25       | 31.25         | 0         | 31.25     | 0             | 31.25       |
15 7.09 0 5.21 7.89 2.48 0.28 31.35 16.84 0.84 35.88
16 1 1 3 1.5 1.5 1 10 19.5 0 23.89
17 4.1 0 10.93 8.65 2.73 0 16.39 5.46 0 59.13
18 3.87 0.06 6.51 7.86 0.4 1.9 29.16 13.29 3.39 33.89
19 1.9 0 5.7 17.01 5.7 0 30.42 13.31 0 23.36
20 0 0 3.6 25.18 7.19 0 10.79 57.55 0 39.57
21 8.2 0.59 3.83 13.87 0.41 0.2 26.44 55.32 1.66 38.01
22 1 0 4 6.09 7.17 0.5 20.26 7 0 54.41
23 2.87 0 2.87 8.6 2.87 0 21.49 57.31 5.73 38.68
24 2.5 0 4.87 11.38 2.18 1.18 19.12 32.22 1.68 42.22
25 3.94 3.98 2.27 6.53 2.69 0.65 16.89 21.73 2.69 32.4
26 2 0.25 2.75 6.56 0.75 0.5 9.7 9 0.75 22.05
27 5.46 0 10.19 10.82 1.37 0 35.34 25.09 1 43.06
28 0.75 0.09 4.66 4.36 0.88 0.91 13.82 13.39 1.5 16.79
29 1.15 0 3.45 10.35 0 0 20.69 25.29 0 44.83
30 2.12 0.12 3.75 3.4 10.63 0.12 11.98 13.62 1.16 38.71
31 5.51 1.84 5.51 1.64 3.68 0 39.75 14.71 0 18.38
32 0 0.25 10.76 6.86 2.13 1.63 27.16 40.52 3.19 29.23
33 1.75 0.86 8.53 3.14 1.61 2.46 36.16 29.92 4.34 30.77
34 4.21 0 13.06 5.18 5.43 1 21.36 19.42 0.75 36.29
35 4.46 0 4.46 19.49 2.98 0 22.32 22.32 1.49 39.31
36 4.5 0 5.6 5.07 1.85 0.5 22.22 35.07 9.41 35.35
37 2.22 0.31 5.12 8.81 3.32 3.1 12.39 23.16 0.75 37.03
38 3 0.75 3 5.34 11.25 1 9.45 10.5 0.75 25.51
39 4.61 0 2 5.22 1 1.11 27.08 51.5 5.82 26.56
40 2.02 0 5.3 4.63 1.44 0.69 17.43 13.49 3.86 27.34
41 4.43 2.21 2.21 4.43 2.21 0 22.12 17.7 2.21 19.91
42 6.54 0 13.09 7.26 4.05 1.01 18.84 15.56 4.03 37.1
43 4.03 1.5 8.81 9.19 5.27 1 15.26 16.03 1 39.24
44 2.31 0 3.62 8.25 1.81 1.81 19.62 28.24 0.81 29.5
45 5.11 0.5 3.09 11.05 4.57 4.14 17.16 21.93 5.18 33.36
46 5.49 3.24 4.24 9.81 3.98 0 15.66 20.97 0.5 54.85
47 5.22 0 4.47 11.28 14.39 0 18.89 28.22 1.91 35.83
48 5.78 0.14 8.13 10.79 0.91 0.8 20.97 18.36 3.76 34.89
49 6.66 0.25 4.7 3.01 2.35 1.82 36.28 14.45 5.7 28.5
50 1.59 0.44 7.91 17.82 8.95 0.31 16.44 17.41 1 35.61
51 2.25 0.5 2.62 23.38 1.38 0.25 20.78 17.62 1.25 52.75
52 1.31 2.66 7.73 8.09 5.95 0.57 22.44 11.69 3.72 39.09
53 2.29 0 9.17 20.39 2.29 0 11.47 16.06 0 50.46
54 10.08 0.5 1 2.17 1 0.5 24.61 46.97 2.5 25.16
55 4.55 0 4.55 10.61 0 0 10.61 71.21 0 37.88
| No. | Temporal Terms | Present Concern | Human Interest | Concreteness | Past Concern | Centrality | Rapport | Cooperation |
|-----|----------------|----------------|----------------|--------------|--------------|------------|---------|-------------|
| 1   | 10.44          | 10.49          | 0.5            | 10.16        | 4.13         | 2.24       | 6.8     | 1.43        |
| 2   | 3.83           | 17.27          | 2.5            | 8.15         | 3.33         | 5.15       | 7.58    | 0.5         |
| 3   | 4.28           | 13.31          | 3.0            | 5.92         | 1.59         | 0.5        | 2.23    | 0.59        |
| 4   | 7.84           | 11.27          | 0.75           | 7.21         | 5.1          | 5.23       | 8.73    | 0.81        |
| 5   | 7.68           | 33.66          | 7.18           | 1.5          | 7.68         | 2.5        | 18.71   | 1.5         |
| 6   | 11.49          | 12.18          | 0.0            | 8.62         | 0.0          | 0.0        | 10.14   | 0           |
| 7   | 5.02           | 12.33          | 1.67           | 11.71        | 1.67         | 1.67       | 2.46    | 0           |
| 8   | 10.9           | 6.4            | 2.03           | 12.21        | 4.49         | 1.86       | 5.82    | 1.38        |
| 9   | 8.97           | 22.15          | 1.0            | 6.74         | 10.59        | 3.69       | 6.68    | 0.66        |
| 10  | 2.04           | 20.41          | 0.0            | 4.08         | 8.16         | 2.04       | 9.72    | 0           |
| 11  | 14.16          | 6.06           | 2.51           | 9.59         | 2.92         | 0.45       | 3.86    | 0.05        |
| 12  | 7.29           | 12.85          | 3.12           | 9.38         | 6.25         | 1.04       | 10.92   | 2.08        |
| 13  | 8.68           | 22.1           | 2.15           | 5.81         | 2.15         | 0.38       | 3.93    | 2.56        |
| 14  | 0.0            | 0.0            | 15.62          | 0.0          | 0.0          | 0.0        | 0.0     | 15.62        |
| 15  | 9.97           | 21.01          | 2.49           | 7.5          | 6.79         | 0.31       | 4.89    | 0.78        |
| 16  | 4              | 2.5            | 1.5            | 50.17        | 3.74         | 2.0        | 3.8     | 0           |
| 17  | 8.2            | 23.1           | 4.1            | 6.83         | 4.1          | 0.0        | 10.07   | 0           |
| 18  | 16.04          | 22.27          | 2.67           | 2.88         | 5.95         | 0.3        | 2.09    | 0.74        |
| 19  | 5.7            | 15.92          | 1.9            | 3.8          | 3.8          | 4.75       | 1.9     | 0           |
| 20  | 0.0            | 17.99          | 0.0            | 7.19         | 0.0          | 7.19       | 0.0     | 0           |
| 21  | 10.06          | 10.43          | 2.68           | 9.4          | 1.94         | 2.92       | 7.19    | 0.06        |
| 22  | 5.59           | 10.09          | 3.09           | 12.67        | 6.76         | 1.25       | 19.61   | 0.5         |
| 23  | 2.87           | 7.16           | 0.0            | 4.3          | 3.58         | 1.43       | 9.69    | 1.43        |
| 24  | 3.18           | 12.25          | 2.68           | 16.79        | 4.7          | 1.6        | 5.18    | 0.5         |
| 25  | 6              | 7.36           | 0.25           | 8.08         | 11.03        | 2.45       | 9.33    | 2.83        |
| 26  | 2.5            | 20.25          | 1.0            | 3.75         | 2.41         | 0.82       | 2.44    | 0.25        |
| 27  | 9.65           | 27.58          | 1.0            | 6.73         | 8.6          | 1.82       | 3.13    | 1           |
| 28  | 3.86           | 133.93         | 1.56           | 3.84         | 4.03         | 0.77       | 2.86    | 0.75        |
| 29  | 5.75           | 19.54          | 2.3            | 5.75         | 3.45         | 0.0        | 8.93    | 0           |
| 30  | 11.01          | 19.7           | 0.5            | 34.28        | 2.99         | 1.12       | 13.46   | 0.62        |
| 31  | 7.35           | 24.82          | 0.0            | 28.49        | 8.27         | 1.84       | 14.1    | 0           |
| 32  | 8.66           | 17.74          | 3.38           | 8.07         | 2.42         | 2.82       | 5.76    | 0.75        |
| 33  | 7.46           | 24.45          | 4.82           | 6.5          | 4.9          | 3.21       | 2.86    | 2.5         |
|   | Rizka and Handoko |
|---|-------------------|
| 34 | 4.96  | 15.46  | 0   | 3.62  | 4.28  | 2.46  | 7.53  | 0.75  |
| 35 | 2.98  | 24.36  | 1.49 | 11.9  | 2.98  | 1.49  | 5.7   | 0     |
| 36 | 9.56  | 16.76  | 6.7  | 21.61 | 6.7   | 1     | 5.23  | 4.7   |
| 37 | 5.1   | 12.24  | 1.28 | 14.68 | 14.99 | 3.44  | 10.8  | 6.83  |
| 38 | 5.25  | 10.52  | 1.5  | 7.25  | 3.39  | 1     | 4.4   | 1     |
| 39 | 6.53  | 16.24  | 1.5  | 12.07 | 2.83  | 1.33  | 2     | 3     |
| 40 | 7.77  | 19.4   | 2.2  | 13.13 | 4.3   | 3.02  | 7.26  | 1     |
| 41 | 2.21  | 24.65  | 0   | 12.17 | 11.06 | 1.44  | 4.43  | 0     |
| 42 | 4.03  | 14.69  | 5.04 | 7.55  | 7.79  | 1.83  | 7.59  | 2.51  |
| 43 | 6.53  | 7.49   | 2.5  | 7.79  | 5.11  | 1.26  | 8.22  | 2.26  |
| 44 | 5.78  | 20.24  | 2   | 7.25  | 10.18 | 1.81  | 2.8   | 0.5   |
| 45 | 9.68  | 15.83  | 0.94 | 6.85  | 5.87  | 4.57  | 3.54  | 0.94  |
| 46 | 7.98  | 14.2   | 4.49 | 13.22 | 2.97  | 1.25  | 11.17 | 0.75  |
| 47 | 14.67 | 20.68  | 1   | 16.94 | 1.64  | 7.86  | 9.86  | 1.75  |
| 48 | 7.12  | 20.53  | 1.27 | 4.97  | 9.29  | 0.7   | 5.36  | 0.44  |
| 49 | 3.37  | 16.36  | 4.73 | 21.31 | 4.28  | 5.5   | 6.83  | 2.57  |
| 50 | 7.36  | 7.44   | 0.31 | 15.05 | 6.35  | 5.44  | 7.83  | 0.47  |
| 51 | 3.88  | 19.23  | 1.38 | 3.81  | 3.01  | 1.04  | 2.8   | 0.38  |
| 52 | 10.47 | 17.25  | 3.09 | 4.45  | 6.59  | 6.56  | 3.99  | 0.17  |
| 53 | 2.29  | 18.35  | 4.59 | 3.44  | 0     | 0     | 4.05  | 0     |
| 54 | 3     | 13.77  | 1   | 4     | 2.45  | 4     | 7.41  | 1.5   |
| 55 | 1.51  | 19.7   | 4.55 | 24.24 | 1.51  | 0     | 11.51 | 3.03  |
| 56 | 2.15  | 26.56  | 2.15 | 15.05 | 2.21  | 2.15  | 7.53  | 0     |
| 57 | 3     | 15.28  | 2.25 | 6.47  | 11.57 | 7.4   | 5.77  | 1.5   |
| 58 | 5.79  | 24.56  | 2.58 | 10.08 | 7.54  | 2.21  | 7     | 0.88  |
| 59 | 14.01 | 20.25  | 0.38 | 12.49 | 7.8   | 0.49  | 7.7   | 2.01  |
| 60 | 5.44  | 11.78  | 4.74 | 19.6  | 7.82  | 4.41  | 9.57  | 1.53  |
| 61 | 3.5   | 14.01  | 1.4  | 22.41 | 0     | 0     | 3.96  | 2.8   |
| 62 | 6.19  | 5.42   | 0   | 20.12 | 3.1   | 0     | 4.64  | 10.84 |
| 63 | 3     | 4.72   | 0.25 | 4.38  | 1.74  | 0.75  | 21.7  | 0.75  |
| 64 | 7.5   | 12.36  | 0.5  | 6     | 4.25  | 1.5   | 3.34  | 1     |
| 65 | 9.79  | 18.53  | 1.57 | 11.15 | 10.13 | 4.11  | 8.52  | 0.5   |
| 66 | 6.59  | 13.19  | 1.1  | 13.19 | 9.89  | 0     | 7.69  | 4.4   |
| 67 | 4.73  | 19.63  | 2.74 | 11.23 | 7.03  | 1.12  | 4.24  | 2.25  |
| 68 | 8.93  | 30.12  | 0   | 6.7   | 4.46  | 2.23  | 2.23  | 0     |
| 69 | 16.11 | 18.68  | 1.5  | 9.8   | 5.64  | 3.27  | 4.3   | 1.25  |
| 70 | 4.08  | 6.5    | 0.5  | 12.65 | 3.5   | 0.5   | 4.63  | 6.58  |
| 71 | 3.12  | 27.75  | 2.22 | 6.14  | 9.25  | 0.42  | 2.91  | 2.6   |
| 72 | 3.29  | 16.92  | 1.39 | 12.69 | 5.77  | 3.13  | 3.62  | 0.88  |
| 73 | 0     | 34.88  | 0   | 20.35 | 0     | 0     | 0     | 5.81  |
| 74 | 6.06  | 21.49  | 2.75 | 8.63  | 8.03  | 1.6   | 7.69  | 3.94  |
| No. | Diversity | Exclusion | Liberation | Denial | Motion | Insistence | Embellishment | Variety | Complexity |
|-----|-----------|-----------|------------|--------|--------|------------|--------------|---------|------------|
| 1   | 0         | 13.76     | 0.25       | 1.68   | 15.17  | 63.16      | 0.94         | 0.43    | 5.34       |
| 2   | 3.65      | 7.79      | 0          | 2.33   | 22.25  | 55.58      | 3.97         | 0.58    | 5.24       |
| 3   | 1         | 15.14     | 1.18       | 1      | 2.09   | 47.94      | 1.15         | 0.46    | 5.2        |
| 4   | 0.12      | 17.73     | 0.03       | 2.54   | 43.38  | 58.88      | 1.8          | 0.51    | 5.07       |
| 5   | 0.5       | 4.5       | 0          | 1      | 11.86  | 34.71      | 0.27         | 0.6     | 5.13       |
| 6   | 0         | 11.49     | 0          | 5.75   | 11.49  | 5.75       | 0.85         | 0.77    | 5.6        |
| 7   | 1.67      | 10.03     | 0          | 0      | 6.69   | 159.2      | 3.57         | 0.46    | 5.1        |
| 8   | 0.65      | 16.24     | 1.16       | 0.38   | 1.81   | 106.97     | 0.72         | 0.48    | 5.05       |
| 9   | 0         | 14.71     | 0.25       | 0.5    | 22.66  | 65.68      | 0.85         | 0.48    | 5.35       |
| 10  | 0         | 14.29     | 0          | 0      | 4.08   | 145.71     | 0.57         | 0.55    | 5.7        |
| 11  | 0         | 10.04     | 0.02       | 0.98   | 0.8    | 214.28     | 0.85         | 0.51    | 5.61       |
| 12  | 0         | 8.65      | 1.04       | 1.04   | 11.46  | 59.58      | 0.71         | 0.46    | 5.1        |
|    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|
| 13 | 0.5 | 12.71 | 0 | 1.15 | 5.18 | 83.21 | 1.26 | 0.52 | 5.59 |
| 14 | 15.62 | 0 | 0 | 0 | 31.25 | 0 | 11.62 | 0.81 | 5.53 |
| 15 | 0.28 | 12.6 | 0.16 | 1.43 | 5.64 | 208.55 | 0.94 | 0.49 | 5.77 |
| 16 | 0.5 | 6.8 | 0 | 1 | 0.5 | 41.3 | 42.58 | 0.75 | 5.61 |
| 17 | 0 | 20.49 | 1.37 | 2.73 | 12.3 | 116.8 | 2.79 | 0.49 | 5.39 |
| 18 | 0 | 16.99 | 1.43 | 0.61 | 1.74 | 198.61 | 0.62 | 0.43 | 5.47 |
| 19 | 0 | 10.27 | 1.9 | 0 | 13.31 | 145.44 | 1.4 | 0.56 | 5.49 |
| 20 | 0 | 26.62 | 0 | 0 | 7.19 | 66.19 | 11.79 | 0.57 | 4.93 |
| 21 | 1.21 | 14.56 | 0.47 | 0.25 | 0.75 | 96.98 | 1.26 | 0.44 | 5.07 |
| 22 | 7.67 | 10.76 | 0 | 0.5 | 26.93 | 23.4 | 1.39 | 0.62 | 5.65 |
| 23 | 0 | 17.19 | 1.43 | 1.43 | 21.49 | 102.29 | 1.3 | 0.52 | 4.88 |
| 24 | 0 | 10.16 | 0.5 | 0 | 12.92 | 90.46 | 1.09 | 0.55 | 5.32 |
| 25 | 1.15 | 15.79 | 0.25 | 4.38 | 21.25 | 78.58 | 0.95 | 0.49 | 5.21 |
| 26 | 0.5 | 10.1 | 0.25 | 1.25 | 8.5 | 59.42 | 1.1 | 0.67 | 4.93 |
| 27 | 0 | 13.86 | 0 | 1.37 | 3.6 | 139.18 | 1.05 | 0.5 | 5.38 |
| 28 | 0 | 8.76 | 0 | 0.06 | 5.72 | 33.05 | 0.82 | 0.74 | 5.11 |
| 29 | 0 | 14.37 | 0 | 1.15 | 5.75 | 83.68 | 1.77 | 0.45 | 5.52 |
| 30 | 0 | 8.94 | 0.38 | 10.51 | 40.66 | 55.71 | 0.99 | 0.67 | 5.05 |
| 31 | 0 | 8.27 | 0 | 5.51 | 16.54 | 215.07 | 0.5 | 0.53 | 5.3 |
| 32 | 0.94 | 16.13 | 0.5 | 1.88 | 7.07 | 93.34 | 0.95 | 0.49 | 5.18 |
| 33 | 0 | 10.25 | 0.5 | 0.5 | 2.25 | 205.11 | 0.29 | 0.45 | 5.2 |
| 34 | 0 | 5.3 | 4.43 | 2.46 | 10.6 | 84.46 | 1.95 | 0.54 | 5.3 |
| 35 | 0 | 17.86 | 0 | 0 | 4.46 | 178.57 | 1.18 | 0.51 | 5.3 |
| 36 | 0 | 17.11 | 0 | 1 | 10.2 | 79.15 | 0.36 | 0.55 | 5.2 |
| 37 | 0 | 14.73 | 0 | 1.16 | 33.77 | 50.61 | 0.4 | 0.61 | 5.2 |
| 38 | 0.25 | 9.05 | 0.75 | 1 | 57.5 | 17.8 | 0.93 | 0.7 | 4.86 |
| 39 | 0 | 11.32 | 1 | 1.61 | 8.43 | 101.95 | 0.68 | 0.47 | 5.01 |
| 40 | 0 | 20.05 | 0.06 | 1.89 | 6.61 | 87.46 | 0.51 | 0.48 | 5.2 |
| 41 | 0 | 12.84 | 0 | 0 | 13.27 | 94.91 | 0.49 | 0.54 | 4.87 |
| 42 | 0.51 | 19.38 | 0 | 1.53 | 22.74 | 108.55 | 0.82 | 0.5 | 5.32 |
| 43 | 1.51 | 14.93 | 0 | 1.26 | 26.42 | 63.08 | 2.08 | 0.57 | 5.51 |
| 44 | 0 | 17.82 | 0.5 | 0.81 | 2.5 | 130.49 | 0.44 | 0.45 | 5.11 |
| 45 | 1.42 | 17.36 | 0.06 | 3.14 | 17.8 | 106.08 | 0.39 | 0.53 | 5.2 |
| 46 | 2.24 | 11.83 | 0.5 | 0.5 | 14.94 | 65.64 | 1.51 | 0.55 | 5.66 |
| 47 | 10.92 | 9.19 | 1.5 | 0.5 | 31.83 | 45.13 | 8.19 | 0.57 | 4.93 |
| 48 | 0.3 | 19.7 | 2.78 | 0.41 | 10.24 | 62.52 | 0.62 | 0.57 | 5.08 |
| 49 | 1.6 | 20.92 | 1.32 | 0.5 | 1.85 | 147.46 | 0.55 | 0.49 | 5.04 |
| 50 | 4.93 | 7.35 | 0.09 | 1.12 | 18.35 | 68.04 | 0.89 | 0.56 | 5.51 |
| 51 | 0 | 8.75 | 1 | 1 | 17.78 | 34.95 | 8.42 | 0.61 | 5.34 |
| 52 | 0.51 | 16.53 | 1.75 | 0.18 | 15.15 | 86.32 | 0.5 | 0.52 | 5.34 |
| 53 | 0 | 14.68 | 0 | 0 | 9.17 | 82.57 | 4.85 | 0.59 | 5.63 |
|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| 54 | 0 | 8.4 | 0 | 0 | 3 | 38.26 | 1.1 | 0.57 |
| 55 | 0 | 6.06 | 0 | 0 | 3.03 | 260 | 3.22 | 0.41 |
| 56 | 0 | 14.52 | 0 | 3.23 | 7.53 | 109.89 | 1.65 | 0.46 |
| 57 | 0.5 | 14.5 | 4.1 | 1 | 31.69 | 22.05 | 0.84 | 0.63 |
| 58 | 0 | 13.82 | 1.71 | 3.91 | 17.91 | 114.06 | 0.93 | 0.52 |
| 59 | 0 | 17.4 | 0.12 | 0.94 | 26.5 | 85.8 | 0.46 | 0.5 |
| 60 | 0 | 22.15 | 0 | 2.76 | 36.04 | 40.38 | 0.4 | 0.58 |
| 61 | 0 | 4.9 | 1.4 | 0 | 4.2 | 78.99 | 1.45 | 0.43 |
| 62 | 0 | 19.97 | 0 | 32.51 | 52.63 | 25.57 | 0.77 | 0.59 |
| 63 | 1 | 30.33 | 0.75 | 1.25 | 31.17 | 25.8 | 34.25 | 0.74 |
| 64 | 0 | 1.5 | 0.5 | 1 | 1 | 64.6 | 25.57 | 0.73 |
| 65 | 1 | 7.56 | 1.57 | 1 | 13.36 | 56.66 | 0.99 | 0.61 |
| 66 | 0 | 16.38 | 0 | 2.2 | 9.89 | 97.25 | 0.42 | 0.52 |
| 67 | 0 | 17.97 | 1.25 | 1.49 | 8.84 | 77.67 | 0.65 | 0.49 |
| 68 | 0 | 31.25 | 0 | 0 | 8.93 | 140.62 | 0.71 | 0.49 |
| 69 | 0.25 | 10.95 | 0.75 | 2.52 | 8.57 | 46.53 | 1.73 | 0.61 |
| 70 | 0 | 7.48 | 0.5 | 1 | 1 | 105.1 | 11.07 | 0.53 |
| 71 | 0 | 24.2 | 0 | 0.25 | 0.75 | 92.99 | 0.57 | 0.49 |
| 72 | 0.77 | 11.74 | 0.25 | 0.38 | 9.25 | 61.12 | 0.68 | 0.44 |
| 73 | 0 | 17.44 | 0 | 0 | 17.44 | 10.47 | 0.08 | 0.74 |
| 74 | 0.12 | 14.61 | 0.25 | 1 | 9.16 | 105.1 | 11.07 | 0.53 |
| 75 | 1.17 | 18.94 | 1.19 | 2.16 | 28.82 | 29.2 | 1.41 | 0.54 |
| 76 | 0.5 | 8.31 | 0.5 | 1 | 0.5 | 124.24 | 0.69 | 0.52 |
| 77 | 3.39 | 20.55 | 0.25 | 0.75 | 6.76 | 96.5 | 0.38 | 0.48 |
| 78 | 0 | 14.06 | 2.01 | 4.02 | 4.02 | 79.52 | 2.79 | 0.59 |
| 79 | 0 | 12.05 | 0 | 0 | 6.02 | 14.46 | 2.44 | 0.74 |
| 80 | 0 | 16.98 | 0 | 0 | 12.46 | 269.16 | 0.73 | 0.41 |
| 81 | 0.64 | 13.48 | 1.14 | 1.5 | 7.93 | 45.76 | 2.26 | 0.48 |
| 82 | 0 | 7.95 | 0.5 | 1 | 1.5 | 56.7 | 0.83 | 0.7 |
| 83 | 0 | 25.78 | 2.6 | 0 | 18.23 | 74.48 | 5.1 | 0.59 |
| 84 | 0.5 | 12.98 | 1 | 1 | 18.36 | 63.18 | 1.53 | 0.57 |
| 85 | 0.5 | 18.77 | 1 | 1 | 0 | 1 | 86.61 | 2.73 | 0.51 |
| 86 | 0 | 7.76 | 2.28 | 0 | 6.85 | 57.76 | 1.9 | 0.62 |
| 87 | 0 | 9.01 | 0 | 0.5 | 16.88 | 53 | 0.86 | 0.6 |
| 88 | 0 | 10.95 | 0 | 3.65 | 18.25 | 20.44 | 1.44 | 0.66 |
| 89 | 0 | 13.77 | 0 | 0.87 | 28.63 | 156.24 | 0.83 | 0.48 |
| 90 | 0.5 | 18.77 | 1 | 0 | 1 | 86.61 | 2.73 | 0.51 |
| 91 | 0.3 | 15.52 | 1.22 | 0.48 | 1.7 | 126.85 | 0.83 | 0.39 |
| 92 | 0.5 | 18.77 | 1 | 0 | 1 | 86.61 | 2.73 | 0.51 |
| 93 | 0.5 | 17.76 | 2.28 | 0 | 6.85 | 57.76 | 1.9 | 0.62 |
| 94 | 16.54 | 33.99 | 0.52 | 4.91 | 32.7 | 19.41 | 0.55 | 0.52 |

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| No. | Complexity | Activity | Optimism | Certainty | Realism | Commonality |
|-----|------------|----------|----------|-----------|---------|-------------|
| 1   | 5.34       | 49.71    | 54.88    | 49.42     | 43.75   | 54.72       |
| 2   | 5.24       | 42.57    | 61.74    | 44.36     | 42.76   | 50.3        |
| 3   | 5.2        | 50.73    | 51.69    | 43.59     | 41.94   | 47.24       |
| 4   | 5.07       | 45.88    | 56.69    | 46.99     | 46.67   | 52.81       |
| 5   | 5.13       | 46.32    | 51.95    | 46.7      | 47.29   | 49.63       |
| 6   | 5.6        | 47.94    | 56.94    | 39.33     | 35.5    | 56.81       |
| 7   | 5.1        | 45.77    | 57.03    | 47.67     | 44.38   | 49.8        |
| 8   | 5.05       | 50.86    | 51.09    | 44.36     | 43.42   | 51.67       |
| 9   | 5.35       | 51.19    | 57.35    | 51.88     | 44.81   | 51.76       |
| 10  | 5.7        | 49.55    | 55.76    | 49.63     | 40.76   | 53.52       |
| 11  | 5.61       | 49.86    | 43.36    | 48.95     | 39.87   | 51.52       |
| 12  | 5.1        | 51.17    | 53.57    | 42.83     | 45.58   | 51.53       |
| 13  | 5.59       | 50.4     | 52.95    | 49.26     | 42.69   | 50.77       |
| 14  | 5.53       | 33.51    | 56.04    | 30.6      | 44.82   | 26.41       |
| 15  | 5.77       | 51.92    | 53.28    | 53.48     | 45.85   | 51.09       |
| 16  | 5.61       | -36.29   | 63.35    | 38.2      | 43.33   | 50.29       |
| 17  | 5.39       | 47.76    | 54.66    | 56.22     | 45.51   | 51.75       |
| 18  | 5.47       | 51.26    | 49.85    | 56.46     | 43.03   | 52.2        |
| 19  | 5.49       | 49.89    | 55.43    | 49.18     | 45.25   | 50.76       |
| 20  | 4.93       | 28.31    | 60.65    | 42.85     | 44.67   | 49.77       |
| 21  | 5.07       | 49.94    | 52.15    | 44.63     | 43.94   | 49.73       |
| 22  | 5.65       | 46.38    | 56.14    | 44.1      | 44.1    | 46.89       |
| 23  | 4.88       | 48.88    | 54.69    | 42.18     | 43.66   | 54.23       |
| 24  | 5.32       | 49.75    | 53.73    | 45.43     | 45.26   | 46.77       |
| 25  | 5.21       | 49.84    | 53.28    | 46.78     | 44.6    | 53.24       |
| 26  | 4.93       | 48.92    | 52.09    | 45.83     | 43.67   | 50.14       |
| 27  | 5.38       | 51.66    | 55.25    | 53.29     | 46.3    | 53.58       |
| 28  | 5.11       | 48.91    | 51.24    | 65.36     | 62.56   | 50.16       |
| 29  | 5.52       | 47.57    | 53.1     | 50.35     | 45.16   | 51.79       |
| 30  | 5.05       | 47.77    | 54.99    | 45.24     | 50.26   | 57.95       |
| 31  | 5.3        | 47.56    | 50.79    | 53.06     | 49.87   | 54.04       |
| 32  | 5.18       | 48.38    | 52.45    | 48.88     | 43.61   | 51.29       |
| 33  | 5.2        | 52.62    | 50.11    | 53.34     | 44.88   | 48.19       |
| 34  | 5.3        | 46.59    | 51.94    | 49.23     | 43.88   | 51.74       |
|   |   |   |   |   |   |
|---|---|---|---|---|---|
| 35 | 5.3 | 50.19 | 56.4 | 52.6 | 45.34 | 51.45 |
| 36 | 5.2 | 53.59 | 52.48 | 46.66 | 43.28 | 47.72 |
| 37 | 5.2 | 51.39 | 52.2 | 44.71 | 47.27 | 50.91 |
| 38 | 4.86 | 51.78 | 54.82 | 42.3 | 47.01 | 49.96 |
| 39 | 5.01 | 53.27 | 49.84 | 45.1 | 45.52 | 50.88 |
| 40 | 5.2 | 49.32 | 51.82 | 51.98 | 44.66 | 51.91 |
| 41 | 4.87 | 50.04 | 52.15 | 49.57 | 49.44 | 49.23 |
| 42 | 5.32 | 51.08 | 55 | 52.81 | 43.52 | 47.77 |
| 43 | 5.51 | 48.42 | 56.61 | 47.04 | 42.37 | 50.97 |
| 44 | 5.11 | 50.84 | 51.71 | 51.25 | 47.59 | 51.28 |
| 45 | 5.2 | 51.97 | 50.87 | 48.04 | 42.51 | 53.63 |
| 46 | 5.66 | 49.45 | 54.44 | 46.65 | 41.79 | 48.58 |
| 47 | 4.93 | 34.87 | 59.02 | 43.64 | 46.01 | 53.08 |
| 48 | 5.08 | 51.39 | 51.72 | 49.96 | 45.28 | 51.53 |
| 49 | 5.04 | 51.3 | 50.75 | 51.7 | 47.2 | 49.67 |
| 50 | 5.51 | 49.35 | 57.03 | 44.91 | 44.55 | 51.86 |
| 51 | 5.34 | 37.63 | 57.06 | 45.43 | 43.36 | 50.12 |
| 52 | 5.34 | 51.81 | 53.16 | 50.32 | 43.6 | 50.92 |
| 53 | 5.63 | 42.5 | 55.87 | 49.4 | 41.2 | 49.45 |
| 54 | 5.09 | 48.23 | 51.77 | 40.42 | 44.71 | 50.23 |
| 55 | 4.89 | 44.79 | 53.96 | 47.83 | 45.33 | 48.35 |
| 56 | 5.12 | 50.67 | 54.79 | 51.76 | 47.86 | 52.6 |
| 57 | 5.07 | 51.42 | 54.46 | 46.17 | 46.72 | 50.34 |
| 58 | 5.39 | 50.98 | 55.09 | 52.87 | 45.71 | 51.52 |
| 59 | 5.25 | 51.23 | 52.27 | 52.49 | 48.44 | 54.07 |
| 60 | 5.09 | 48.92 | 51.8 | 47.66 | 48.43 | 49.41 |
| 61 | 4.88 | 50.03 | 51.95 | 40.91 | 43.03 | 53.92 |
| 62 | 4.91 | 52.31 | 51.71 | 45.15 | 47.7 | 51.45 |
| 63 | 5.17 | -21.92 | 60.92 | 39.31 | 41.55 | 50.56 |
| 64 | 6.4 | 1.38 | 62.77 | 39.18 | 32.79 | 51.14 |
| 65 | 5.37 | 50.33 | 57.85 | 50.38 | 43.82 | 51.59 |
| 66 | 5.42 | 52.88 | 51.54 | 47.11 | 44.98 | 52.42 |
| 67 | 5.28 | 51.87 | 52.7 | 49.31 | 45.83 | 49.5 |
| 68 | 4.94 | 50.33 | 53.2 | 55.49 | 45.38 | 49.86 |
| 69 | 5.52 | 50.81 | 52.75 | 46.96 | 44.75 | 51.84 |
| 70 | 5.3 | 31.53 | 55.22 | 39.33 | 43.27 | 50.84 |
| 71 | 5.08 | 52.97 | 52.01 | 49.7 | 46.7 | 47.09 |
| 72 | 4.97 | 50.85 | 52.82 | 48.6 | 47.77 | 50.47 |
| 73 | 4.88 | 57.2 | 54.16 | 45.13 | 43.06 | 49.17 |
| 74 | 5.13 | 52.55 | 52.97 | 49.69 | 46.28 | 49.39 |
| 75 | 5.09 | 46 | 54.41 | 46.49 | 46.73 | 50.11 |
|    | 5   | 51.87 | 52.2 | 45.1 | 45.05 | 49.1 |
|----|-----|-------|------|------|-------|------|
| 76 | 5.39 | 50.26 | 55.55 | 50.52 | 45.85 | 52   |
| 77 | 5.12 | 45.9  | 51.52 | 47.16 | 44.06 | 54.26|
| 78 | 5.32 | 46.12 | 57.8  | 40.95 | 45.06 | 48.74|
| 79 | 4.96 | 50.1  | 51.68 | 50.5  | 45.29 | 51.43|
| 80 | 5.27 | 47.23 | 54.93 | 50.53 | 45.88 | 53.25|
| 81 | 5.56 | 50.53 | 50.79 | 41.43 | 36.58 | 50.07|
| 82 | 5.3  | 43.28 | 57.3  | 49.5  | 42.35 | 54.64|
| 83 | 5.38 | 49.47 | 56.25 | 48.79 | 45.17 | 49.17|
| 84 | 5.21 | 48.03 | 53.68 | 48.39 | 46.31 | 53.73|
| 85 | 5.02 | 45.95 | 52.59 | 45.58 | 44.9  | 51.02|
| 86 | 5.65 | 45.32 | 56.64 | 45.15 | 42.34 | 50.24|
| 87 | 5.36 | 48.22 | 54.99 | 51.47 | 44.74 | 52.79|
| 88 | 5.26 | 53.08 | 58.29 | 47.32 | 48.76 | 50.92|
| 89 | 5.21 | 48.03 | 53.68 | 48.39 | 46.31 | 53.73|
| 90 | 5.19 | 50.29 | 51.47 | 54.06 | 45.31 | 51.88|
| 91 | 5.02 | 45.95 | 52.59 | 45.58 | 44.9  | 51.02|
| 92 | 5.65 | 45.32 | 56.64 | 45.15 | 42.34 | 50.24|
| 93 | 4.4  | 48.51 | 49.59 | 48.21 | 53.01 | 50.93|
| 94 | 5.33 | 50.14 | 48.66 | 45.04 | 45.36 | 51.82|
| 95 | 4.2  | 49.09 | 42.8  | 46.68 | 49.6  | 50.05|
| 96 | 5.09 | 36.9  | 50.48 | 42.03 | 42.75 | 42.9 |
| 97 | 4.57 | 49.56 | 52.79 | 35.21 | 48.85 | 53.44|
| 98 | 5.32 | 55.78 | 51.21 | 51.9  | 45.43 | 49.43|