MEASURING INTANGIBLE ASSET: FIRM REPUTATION

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Abstract. The purpose of this research is to find out the measurement of firm reputation that are still relevant to represent firm reputation. The measurement that are being tested in this research are CSR Award, Firm Age, Listing Age, Market Capitalization, Buy and Hold Abnormal Return and Price Earnings Ratio as the measurement for firm reputation. The novelty of this research is able to prove LQ45 are able to become a measurement to represent firm reputation. The data sample of this research are companies that listed in Indonesia stock exchange between 2016 till 2020. To select the research sample, this research conducted purposive sampling. This research data analysis is using SPSS program to conduct descriptive statistical test and spearman correlation test to measure the correlation between each variable. The results of this study show that measurement like listing age and BHAR are no longer a relevant measurement to measure firm reputation but CSR Award, Firm Age, Market Capitalization and Price earning Ratio are still a relevant measurement to measure firm reputation. This research also found that LQ45 can be used as the novel measurement for firm reputation. This research results will be helpful for researcher in firm reputation area.

Keywords: buy and hold abnormal return, CSR Award, firm age, firm reputation, listing age, LQ45, market capitalization, price earnings ratio.

JEL Classification: G11, G31, M14.

Introduction

Reputation are a word that is often used today. In the fields of media, sports, travel to business, the word reputation is a word that will be associated with a person, place or organization. The word reputation is widely used easily regardless of its meaning. Along with the progress of business management science (Gomez-Trujillo et al., 2020). Company reputation or firm reputation is a term that is often used and has its own value in influencing companies. Reputation cannot be identified as an asset in the financial statements but reputation has an influence on investor confidence, recruitment staff, supplier attitudes and influence on other stakeholders as a tool for business relations. Reputation is a major risk and asset for any business and is included in the business review team of directors in the report section of companies actions (Brady & Honey, 2007). The job of protecting the company's reputation is a relevant and difficult task for company directors. Examples such as the BP oil spill in the Gulf of Mexico and the case of a vehicle recall by Toyota due to product defects. The two examples above show how easily a reputation that is built over tens or even hundreds of years goes from being a good position to being damaged. In addition, reputation risk is very important for companies, especially companies engaged in retail, social media and the internet. Companies in this area of business run the risk of spreading bad news faster in other areas. For companies, only one main question is enough for each story that happens “Will this event tarnish the firm reputation?”. A company that has a bad reputation will have direct impact to the company’s financial performance, for example, such as high capital costs, employees who are less motivated, the level of investor confidence, decreasing supplier confidence level, disappointed customers (Gatzert, 2015).

Firm reputation has different definitions for different stakeholders. Company performance for investors, remuneration standards for employees, payment ability for suppliers, product quality for customers. Because firm reputation has different definitions, management has different communication strategies in every reputation crisis event that occurs (Haleblian et al., 2006). Firm reputation concept can be both simple and complex, playing an important role with the increasing number of studies in the business management literature. Firm reputation is a simple idea with an intuitive appeal that is reflected in the company’s level of popularity (Edi et al., 2020a). Firm
reputation comes from historical behavior and corporate relationships but firm reputation can change over time if new information about the organization’s past behavior is revealed or recent behavior can change the perceptions of observers. In Toyota motor corporation case, product recall has had a major impact on the reputation that accompanies high quality and reliability. Companies face a reputation crisis that includes investigations of regulatory violations, billions of dollars in draw-off losses and losses incurred as a result of sales stops. The idea that it takes decades to build a reputation but only takes few minutes to ruin it.

Firm reputation has a simple and easy-to-understand meaning, the previous literature when it comes to researching firm reputation needs to be faced with deep complexity. Firm reputation is a simple construction that has several different definitions, conceptualizations and operations in several studies. This complication has emerged particularly in the last decade, where the previous literature has seen an increasing in the attention paid by previous research on the subject of firm reputation (Lange et al., 2011). In this review, we focus on this formative period in particular to gather and make conclusions on research that largely discusses the measurement of firm reputation. This study not only aims to present the current state of firm reputation knowledge, but also aims to provide new insights for firm reputation management, to identify, assess, and measure firm reputation. Firm reputation requires a comprehensive consideration and understanding of various approaches so that it can provide important decision-making steps for companies.

Previous research studies offer a variety of definitions and approaches to measure firm reputation. In general, it seems that firm reputation is an intangible asset that is multidimensional and reflects the different perceptions of corporate stakeholders on financial (Edi et al., 2020b; Edi & Susanti, 2021) and non-financial approaches (Barnett et al., 2006; Fombrun & van Riel, 1997; Lange et al., 2011; Petkova et al., 2014; Rindova et al., 2005). Firm reputation is a perceptual assessment of the company by stakeholders (Kaur & Singh, 2018). Research on firm reputation has evolved over the last few years and many studies have been conducted from quantifying the benefits of a good firm reputation to its measurement. Although a lot of research is being done in this field. Many studies still have problems especially for concrete measurements of firm reputation, most of the previous studies focused on qualitative data to estimate firm reputation. So far, most of the studies on firm reputation use primary data sources to measure firm reputation which consist of the opinions of various stakeholders such as consumers, analysts, CEOs, employees and the public.

Broadly speaking, the most popular measurement is to use a ranking released by various magazines such as Fortune Magazine's Most Admired Companies (FMAC) list, where surveys are conducted to rank companies from various industries. The rating method uses eight approaches, namely innovation, employee potential, company assets, quality of products and services, social responsibility, quality of management, financial health and long-term investment value. This measurement uses an assessment of the stakeholders' perceptions of the company. This type of survey was also carried out in various other countries such as those in the German Magazine manager rankings; RepuTex ranking in Australia, Harris Fombrun Reputation Quotient (RQ) index, UK's most admired company, 4 Merco index in Spain, 5 Credibility Index in China. This qualitative technique of measuring firm reputation is often criticized for the lack of completeness because this method combines the opinions of few stakeholder group and unfit for scientific research, contains bias, is associated with the presence of financial halos that has limited applicability.

Previous research studies in the field of reputation have revealed high inefficiencies in measuring firm reputation qualitatively. This motivated researchers to develop a more efficient proxies for measuring reputation (Rabier, 2017). There is a lot of studies that have attempted to measure a company's reputation, to find out the measurement techniques of firm reputation other than survey methods (Gomez-Trujillo et al., 2020; Kaur & Singh, 2018). The purpose of this research is to provide a list of various firm reputation measurement that are more efficient, more economic and quantitatively that are able to fit scientific research, without bias and easiness of applicability. By testing the correlation between each measurement, this research can provide a better understanding which measurement that are no longer in the same track with the other measurement and are no longer relevant being a measurement for firm reputation and also can prove which measurement that are still a relevant measurement to represent firm reputation. The novelty of this research is by providing a new index measurement that are able to represent firm reputation based on signaling theory.

1. Review of literature

Firm reputation is an intangible-assets because of its characteristics which is defined on the opinions and perceptions of firm by the industry stakeholders. Firm reputation is based on the theory of institutional theory which a good firm reputation will gain firm legitimacy (Baah et al., 2021).

Firm Reputation measurement has several approaches, one of which is measuring it using a questionnaire. In terms of the questionnaire, there are also several ways of approaching both from an investor and management perspective (Chun & Davies, 2010; Gao et al., 2017; Low & Robins, 2014; Onakoya et al., 2018), vendor (Spagno-lo, 2012), customer and public (Abdullah & Abdul Aziz, 2013; Boyd et al., 2010; Doroshin et al., 2017; Fong et al., 2013; Foroudi et al., 2014; González-Rodriguez et al., 2019; Höflinger et al., 2018; Matarazzo et al., 2017; Mitto et al., 2020; Mishina et al., 2012; Raithel & Schweiger, 2015; Tanggamanet et al., 2020; Tangngisalu et al., 2020;
Research that uses a questionnaire data approach is a very popular approach in firm reputation but this approach has various approaches. Different approaches can produce different firm reputation values. Something favorable in the eyes of management is not necessarily something favorable in the eyes of the market. This approach can be judged to have a high risk of bias. Apart from a high degree of bias. The questionnaire method approach also has a high level of instability because a person's thinking can change over time and at any time so that reputation assessment can change at any time (Raithel & Schwaiger, 2015). Apart from that, the questionnaire method also has a very large cost value so that the achievable level for academics will be limited due to cost constraints (Rabier, 2017).

Other than questionnaire approach, Firm reputation also can be measure by using indexes as a measurement method that is very popular among academics. The index measurement consists of the reputation ratings from Fortune's Most Admired Company (Brady & Honey, 2007), Cao et al., 2012; Flanagan et al., 2011; Flatt & Kowalczyk, 2006; Gao et al., 2017; Haleblian et al., 2017; Liu & Lu, 2021; Pires & Trez, 2018), Fombrun Index Reptrak (Brady & Honey, 2007; Chalençon et al., 2017), Wall Street Journal Harris Interactive (Pfarrer et al., 2010), h index of publication (Erden et al., 2015; Zavyalova et al., 2016), National Research Council Rating (Grunig, 1997), Taiwan Excellence in Corporate Social Responsibility (Weng & Chen, 2017), Top 20 Taiwan List (Weng & Chen, 2017), Korea Most Admired Company (Park, 2017), Spain Merco Ranking (García-Meca & Palacio, 2018), WGI Index (He & Zhang, 2018), Green Firm KLD Index (Boone & Uysal, 2020), Credit Rating Index (Baghai & Becker, 2020), Corporate Social Responsibility Index (Gao et al., 2017), Dax 300 (Raithel & Schwaiger, 2015) and other award from reputable organization (Tanggaman et al., 2020). Index measurement has a long and popular history for use in firm reputation research (Fombrun & van Riel, 1997; Haleblian et al., 2017) but this measure has its own undeniable limitations. This limitation is limited to certain countries. For example, the Fortune Most Admired Company will only provide value to multinational companies that have reached the international level. Does this make it clear that companies that do not reach FMAC recognized levels have no reputation (Edi et al., 2020b). The limitations of the questionnaire and index have provided new motivation for other researchers to seek a more relevant, universal and economical measure of firm reputation. This aims to provide convenience in the development of firm reputation science itself. Along with the increasing number of firm reputation researches. Measurement of firm reputation in the form of secondary data that is more efficient and easy to obtain continues to emerge. These secondary measurements consist of Cumulative Abnormal Return (Shu & Wong, 2018), CSR Rating (Bahta et al., 2021), Price to Earning Ratio (Edi et al., 2020b), Firm Age (Zakerean et al., 2020), Listing Age (Kaur & Singh, 2018), market capitalization (Sigera & Cahoon, 2018), Dividend Yield (Kaur & Singh, 2018).

**CSR award**

Society and business are two forces that are interconnected and cannot be separated. The growth of both is mutually beneficial and there are no company can achieve the pinnacle of success without socially responsive. Companies that do not carry out social activities will not last long in the business world (Cellier & Chollet, 2016). Companies carry out CSR actions not because of pressure from government regulations (Edi & Susanti, 2021) but indeed the company knows the potential benefits of these activities. CSR activity are highly associated with firm reputation, CSR practices contribute toward better image and strong market positioning (Bahta et al., 2021). Customer will have more empathy toward the firm that are doing more CSR than other firm which will increasing their firm reputation (Fan et al., 2021). Corporate social responsibility are a good marketing tools to promote the firm reputation to the market which will increase the firm reputation positioning in the market (Carter et al., 2021). Stakeholder will respond positively and have a more favorable preference to company that are frequently doing CSR or receiving CSR award (Javed et al., 2020). CSR is a very strong long term strategy to gain reputation which means that the more CSR award that are received by the firm the higher the firm reputation of the firm (Mai et al., 2021). Previous research reviews found that there are two reasons behind the CSR activities of companies. The first is a normative case that establishes a moral responsibility on the company to return. The second reason is a business case that places the interests of the company itself so that it makes the company aware of the potential economic benefits in the future by carrying out CSR activities. Firm reputation has always been identified as a motivator for companies to engage in CSR activities. CSR and reputation are two things that cannot be separated. CSR can be a pioneer of reputation, a core element and a key driver of a company's reputation. CSR disclosure has a function that provides information to the public in building or increasing firm reputation (Cellier & Chollet, 2016). CSR activities can actually convey a lot more than what is contained in financial reports and build a favorable image in stakeholder perceptions. The company feels that being involved in CSR activities will provide a competitive advantage to the company because it provides a positive image or firm reputation (Fombrun & Shanley, 1990; Kaur & Singh, 2018). Various CSR certifications and awards are given annually to companies that have made outstanding achievements in the CSR field. This is equivalent to the Oscar, grammy, awards to Hollywood artists. The award drew media attention to the company and thus provided intangible benefits to the company. Based on the explanation above, the first hypothesis of this study is H1 = CSR Award has a positive correlation with other proxy firm reputation.
Price earning ratio

Firm reputation is the result of equating perception with reality. Perceptions of the company are shaped by previous experiences, expert opinion, media, employees and analyst (Edi et al., 2020a). The company's actual results in terms of profit and market share are combined with stakeholders in forming an impression, namely its reputation. A good perceptual assessment indicates the company's position has a clear future. Price earning ratio is one of the multiple assessments doubled by profit which reveals the company's current financial position and assesses the company's future growth prospects (Kaur & Singh, 2018). In general, the price earning ratio shows that investors are willing to pay as much as the company's profit (Edi et al., 2020b). A healthy price earning ratio indicate for a healthy company's financial. This figure signifies current earning capacity and potential future value that investors interpret in terms of future value. Investors expect the growth and safety of funds in companies that have high price earning ratios and low risk. Price earning ratio can be used as a guide for investors to choose stocks of companies that offer companies that have a high attractiveness or firm reputation among investors. Companies with high price earning ratios indicate that the company is preferred by investors. Price earning ratio expresses the perception of investors towards the company. When the price earning ratio are high, it indicates that investors are optimistic and willing to invest in the company. This could also interpret firm reputation in investors' perceptions. Two companies are the same in every way but can have different price earning ratios (Edi & Susanti, 2021). This difference in ratio is caused by unique resource ownership, which cannot be imitated and cannot be replaced by a company that has a higher price earning ratio. This means that a high price earning ratio can indicate that company has a higher firm reputation than other companies. Based on the explanation above, the hypothesis of the two studies is H2 = Price Earning Ratio has a positive correlation with other proxies for firm reputation.

Firm age

A company can have a long life cause by a combination of a healthy resource base, deep experience and stability. New companies always feel insecure to stakeholders because they are not used to new companies and doubt their potential (Kaur & Singh, 2018). Young and new companies provide an image that differentiate them from the old established companies. Young firms have more potential to channel growth opportunities but at the same time, this also represents a high level of risk compared to incumbents. Companies will need to learn over few years to gain experience in various fields to build a strong network with the stakeholders to get an established position that the stakeholders perceive. Investors will have more confidence in investing their funds in companies that have been established for a long time than in companies that are newly established. Companies with a long life have relationships with stakeholders gradually over several periods or even decades. So that companies with a longer life will get more support from stakeholders from all aspects, thus the possibility of companies facing financial failure is lower. Stakeholders prefer the old company and expect the company to be better known by the public than the new company. In a situation where the buyer realizes a good seller due to past relationships. The level of trust from the buyer will be higher when making transactions with the seller. Higher levels of trust will result in lower monitoring, more confidence and generate positive perceptions about the company (Edi & Susanti, 2021). In the end, a good firm reputation will developed in companies that have a long life. The more time the company has in business, the greater the opportunity to build a perception of positive firm reputation. Based on the explanation above, the third hypothesis of this studies is H3 = Firm Age has a positive correlation with other proxy firm reputation.

Listing age

Company visibility is a level of media attention to the company. Usually a company with a long life does not necessarily have a high level of visibility. A Company existence sometimes can be fail to leave a good impression to the firm stakeholders. There may be companies that exist but the stakeholders do not know them. The level of public attention to the company has an important role in this. Visibility can be in terms of media visibility or social visibility like CSR, visibility in the stock market or various segments can be very useful for companies to build a company's reputation (Pfarrer et al., 2010). External visibility has an important role in building positive reputations to the stakeholders. Visibility can be identified as an important dimension in building firm reputation. Companies with high visibility are expected by stakeholders to be under greater supervision and are expected to disclose things that are more transparent with a low probability of fraud and are felt by stakeholders than companies with low visibility. Apart from that, stakeholders have a closer relationship with companies that have high visibility. Direct media coverage has a close relationship with firm reputation. A firm's constant appearance in the news or media helps generate a positive image of the company (Fombrun & Shanley, 1990). Companies that are actively visible on the stock market will provide positive perceptions of stakeholders. Listed companies have a higher credibility value than companies that are not listed on the stock exchange. This is due to the strict rules and high transparency as a requirement for companies to be listed on the stock exchange. Usually, banks and financial institutions will provide facilities and lower interest rates to companies listed on the stock exchange than those that are not listed. This indicates that companies listed on the stock exchange are more trusted or have better firm reputation than companies that are not listed on the stock exchange. Listed on stock exchange will increase their visibility that
is expected to produce a positive impression or image among the public. Stakeholders are more confident doing business with listed companies than their unregistered counterparts. The listed companies are much being talked among stakeholder and also will occupy in newspapers, radio, press agency and television at home and abroad, enabling free publicity of public companies where the general public knows more about them that will increase the level of familiarity. Listed on the stock market has always contributed to the development of firm reputation. From this discussion, it can be concluded that the listing age of a company is related to a better company reputation. Based on the above explanation, the fourth hypothesis of this study is H4 = Listing Age has a positive correlation with other proxy firm reputation.

**Market capitalization**

Stock market return are influenced by the company’s financial performance from tangible assets and intangible resources owned by the company (Porter, 1985; Sigera & Cahoon, 2018). The reason for the difference in the market value of the two companies is the same in all respects but different, this difference is always associated with the ownership of an intangible asset such as firm reputation. A good market value will be associated with a good firm reputation. Good market capitalization defined as the total market value of the company’s outstanding shares. Market capitalization is ensured by multiplying the number of shares outstanding by the current market price of shares per share. Market capitalization is a reflection of the company’s current share price. High and good market capitalization represents good public opinion about the company, the company’s ability to deal with market volatility and is considered a less risky investment that attracts investors (Clausen & Hirth, 2016). The securities of companies with high market capitalization will be liked by investors because they are more stable, attractive, lower risk, and have more liquidity. Such companies are expected to perform much better in the near future because they are more stable to market risk, pay more dividends, and ensure the safety and liquidity of funds with good returns. Companies with high market capitalization are supported by a history of stable growth and consistent performance that has increased investor confidence. Market capitalization consists of two components, namely the number of shares outstanding and the market price. Market capitalization is an amalgamation of the perceptions of various investors leading to stock price movements in the market (Edi & Susanti, 2021). Market price volatility moves at any time or more specifically every second can change. These variations contribute to changes in total share market value. An increase in market capitalization can be attributed to a good firm reputation. Firm reputation gives value for a company by increasing its market value. The reputation of the company that forms a major part of the intangible assets has outstripped tangible resources in determining the company’s value in the market. Companies that describe high total share market value gain better reputation ratings on the FMAC list, therefore high market capitalization companies have a superior firm reputation. In general, high and good market capitalization defined a more valuable company. There is sufficient empirical and theoretical evidence linking market capitalization to firm reputation. Well-known companies outperform their competitors by displaying a higher market value because they have qualities that enhance their market position. High market capitalization includes a good reputation and it is wise to use market capitalization as a proxy for public opinion (Kaur & Singh, 2018). Due to its good reputation in the market the company enjoys a better market position than its competitors. Therefore, it can be said that market capitalization can serve as a proxy for a company’s reputation. Based on the explanation above, the fifth hypothesis of this study is H5 = Market Capitalization has a positive correlation with proxy firm reputation.

**Buy and hold abnormal return**

Firm reputation is conceptualized as a “collective assessment” by a group of specific stakeholders in terms of company capabilities and character. Firm reputation represents a collective evaluation of the quality and performance characteristics of a company. The characteristics of firm reputation are a collective assessment of the incentives and trends in corporate behavior (Mishina et al., 2012). An assessment of firm reputation that relies on stakeholders becomes an assessment for firm reputation (Mishina et al., 2012; Raithel & Schwaiger, 2015). Firm reputation are highly correlated with firm performance which is a high reputation firm will have a larger sales and larger market share than their competitor which will significantly boost their firm performance (Baah et al., 2021; Gwebu et al., 2018). In general, research has used this concept to understand how the evaluation of stakeholder members of the company can lead to an assessment that increases the reputation of the company over time (Haleblian et al., 2020; Mishina et al., 2012). In particular, stakeholders tend to use firm reputation as a benchmark in making investment decisions. The effect of investment decision making is inherent in firm reputation. This results is that any change in firm reputation will be directly reflected in the company’s stock price performance (Mishina et al., 2012). The stakeholder group of the company that has the closest relationship is the investor or shareholder. Any money invested by investors in the company has the expectation of a high return on investment. Shareholder returns consist of two parts, namely regular returns in dividends paid by the company and returns on share value revaluations. Shareholder profits or returns serve as the basis for investors and other stakeholders to make an assessment of a company’s prospects. The easiest and basic comparison tool for investors to choose a company from other companies. Signaling theory states that information and uncertainty encourage investors to look for various other clues in choosing the best investment. Behind the
best stock returns there is an investor who is satisfied with the company’s performance. Investors use stock returns as a yardstick to compare with other companies and choose the best firm. Return on shares is a function of that derives value from firm reputation as in previous research. Firm reputation can be used as a basis when investors are having difficulties in choosing companies that are similar in all aspects (Edi et al., 2020b). Firm reputation has the potential to create value for shareholders (Edi et al., 2020a). The relationship between firm reputation and stock returns can be found in resources-based theory (Porter, 1985). Ownership of scarce resources provides value for better performance. Company with Positive news in the media, announcements such as bonus distribution, dividend declarations, favorable views by analysts and experts, past good performance, and sales growth, all speak of a good name in the market. Investors took cues from all these signals and eventually the demand for the securities of well-known companies increased. These responses are requested from shareholders indicating their level of confidence in the company, which causes the share price to move upwards. Based on the above explanation, the sixth hypothesis of this study is H6 = Buy and Hold Abnormal Return has a positive correlation with other proxy firm reputation.

LQ45 index

Signaling theory states that information and uncertainty encourage investors to look for other clues in choosing the best investment (Mishina et al., 2012). Previous research using dummy data from multiple source that are rating the company ranking as an order to measure firm reputation. Based on these measurement characteristics, LQ45 index could be a novel measurement to measure firm reputation for Indonesia listed company. LQ45 is an easy and structured guide that can be obtained by investors to measure a firm reputation whether the firm was favorable to the investor. Investors can use LQ45 as a benchmark to compare with other companies and choose the best from them. The LQ45 index is one of the indicators of the Indonesian stock market index, the LQ45 itself is a composite index of 45 issuers with highest liquidity, in which the selection of issuers to be included in the LQ45 index is selected using several selection criteria. Since February 1997 the day LQ45 launch, the main measure of an issuer's transaction liquidity is determined by the transaction value in the regular market. In accordance with market developments and to further refine the liquidity criteria, since the January 2005 review, the number of trading days and the frequency of transactions are included as a measure of liquidity. To determine stocks that are included in LQ45, two stages of selection are used. The first stage, the shares are in the top 95 percent of the total annual average value of stock transactions in the regular market, are in the top 90 percent of the annual average market capitalization and are listed on the IDX for a minimum of 30 trading days. The second stage is the highest order representing the sector in the IDX industrial classification, having the same portion as other sectors and having the highest order position based on the frequency of transactions. The LQ45 index uses the weighted average method with the Paasche formula. As used in the Jakarta Composite Index in IDX. The criteria set will pass shares that have market capitalization and high liquidity. The Indonesia Stock capitalization and high liquidity. The Indonesia Stock Exchange routinely monitors the progress of the performance of issuers that are included in the calculation of the LQ45 index. Every three months an evaluation is carried out on the movement of the order of these shares. Replacement of shares will be carried out once in six months, namely at the beginning of February and August (Polakitan, 2015). Companies listed on LQ45 are the most liquid companies and are the top 45 companies. So it is likely that investors will prefer more stable companies (Lestari & Sulistyawati, 2017). The LQ45 index can also influence the decision of potential investors to buy these shares. This is due to the public’s belief in stocks in LQ45 where these stocks have better financial strength than stocks outside LQ45. LQ45 indexed stocks are usually called blue-chip stocks. This belief cannot be separated from the perception of risk held by the public where stocks in LQ45 have a smaller risk than stocks outside LQ45. The LQ45 index is an index of a collection of stocks with a good level of liquidity and can be a good reference for investors, traders, brokers, and stock analysts to see stock and market developments. The LQ45 index can be a proxy for the JCI because the correlation between the LQ45 index and the JCI is very high, which is 99.99 percent. The LQ45 index greatly affects the JCI because the stocks listed on the LQ45 index are stocks with a large market capitalization value, so their movements can affect the JCI movement. Some investors feel calmer by investing their funds in stocks that are in LQ45 compared to stocks that are outside LQ45. The stock selection encourages an increase in trading volume and then increases stock prices which further increases market capitalization. The existence of shares in LQ45 is strongly influenced by external and internal factors. The Indonesia Stock Exchange defines LQ45 as an index of 45 companies with the highest market capitalization in the last 1–2 months, 45 companies with the highest transaction value in the regular market in the last 12 months, have been listed on the Indonesia Stock Exchange for at least 3 months, have high financial condition, growth prospects and transaction value. The LQ45 index is calculated every six months by the research and development division of the Indonesia Stock Exchange (Karamoy & Tasik, 2019). Based on the above explanation, the seventh hypothesis of this study is H7 = LQ45 has a positive correlation with other proxy firm reputation.

2. Research methodology

Sample selection

This research sample consists of Indonesia firm publicly listed firms with all segment on the board of Indonesia
Stock Exchange for the period 2010 till 2016. The data analysis was using spearman correlation to analyze the relationship between one measurement with the other measurement to find out, which of the measurement are still relevant as in the same correlation with other measurement so it can used as the measurement for firm reputation. When a measurement are no longer have a significant correlation with other measurement its also giving the answer that its no longer a relevant measurement to measure firm reputation (Table 1).

3. Results and discussion

From the descriptive analysis above (Table 2) we can find CSR Award data are between from 0 to 15 and average result are 0.32 which is mean the firm Indonesia are mostly not allocate their resources in maximizing their CSR activity. When mostly of the firm Indonesia cannot even get a minimum 1 CSR award in their operating year. Price earning data are between –541.8293 till 52.989.71 which the number are seem ridiculously high but statistically there are some company that are really being trusted by the investor even when their EPS are dropped under 1 Rupiah. The investors are still willingly to purchase their share price 52 thousand times from their EPS. From this data we can realized the reputation of this firm are so strong that can even make the investor forget the logical fundamental of the firm. Firm age are between 7 years to 124 years and average data are 38.56 which mean mostly company that are listed in Indonesia are having a long time history with a minimum above 35 years of history. Listing age are between 3 years to 39 years and average data are 18.63 years which mean that mostly firm that are listed in Indonesia stock exchange are having a listing history above 15 years listing. Market capitalization are between Rp 27 Billion till Rp 82 Billion with the average around Rp 29 billion, this data means that mostly Indonesia listed firm market capitalization are around the minimum line only a few are able to achieve the highest level market capitalization, which this also mean that the investor or shareholder in Indonesia are having a high loyalty to their own stock so focusing their fund to the high reputation firm. Buy and hold abnormal return are between –1 to 10.2692 with the average data are 0.122654 the reason are same with market

<table>
<thead>
<tr>
<th>Measurement of Firm Reputation</th>
<th>Measurement</th>
<th>Implication</th>
</tr>
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<tbody>
<tr>
<td>CSR Award</td>
<td>The accumulated yearly CSR Award</td>
<td>A higher value indicated better reputation.</td>
</tr>
<tr>
<td>Price Earning Ratio</td>
<td>Market Value divided with Earning Per Share</td>
<td>The higher the value means more higher reputation that the investor are willingly to pay for purchasing its share.</td>
</tr>
<tr>
<td>Firm Age</td>
<td>Current Year – Firm Founding year</td>
<td>The longer the life of the firm means that the firm was well respected in the industry by being able to survive in business competition from time to time.</td>
</tr>
<tr>
<td>Listing Age</td>
<td>Current Year – Firm Listing Year</td>
<td>Higher listing age reflect the better reputation in the stock exchange.</td>
</tr>
<tr>
<td>Market Capitalization</td>
<td>Market price X Share Outstanding</td>
<td>A higher value means the firm reputation are more well known by the investor.</td>
</tr>
<tr>
<td>Buy and Hold Abnormal Return</td>
<td>Yearly changes in stock price</td>
<td>Higher shareholder return indicate that the investor will more highly regard the company performance which will implicate to its reputation.</td>
</tr>
<tr>
<td>LQ45</td>
<td>Listed in Indonesian Stock Exchange top 45 most liquid traded stock in 6 months</td>
<td>To be able listed in Indonesia top 45 most liquid traded stock means that the company have a certain reputation in front of the investor.</td>
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<tr>
<th>Variable</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
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<tbody>
<tr>
<td>CSR Award</td>
<td>713</td>
<td>0.000000</td>
<td>15.00000</td>
<td>0.32</td>
<td>1.030</td>
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<tr>
<td>Price to Earning Ratio</td>
<td>713</td>
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<td>38.56</td>
<td>18.334</td>
</tr>
<tr>
<td>Listing Age</td>
<td>713</td>
<td>3</td>
<td>39</td>
<td>18.63</td>
<td>9.095</td>
</tr>
<tr>
<td>Market Capitalization</td>
<td>713</td>
<td>27.861.600.000</td>
<td>82.409.370.925</td>
<td>29.036.513.153.729</td>
<td>83.740.053.047.044</td>
</tr>
<tr>
<td>BHAR</td>
<td>713</td>
<td>–1</td>
<td>10.2692</td>
<td>0.122654</td>
<td>0.7551519</td>
</tr>
<tr>
<td>LQ45</td>
<td>713</td>
<td>0</td>
<td>2</td>
<td>0.42</td>
<td>0.798</td>
</tr>
</tbody>
</table>
capitalization. Indonesia investor are having a high loyalty to their own stocks by focusing their fund to the high reputation firm.

**Hypothesis testing**

From the table below (Table 3) we can summarised CSR award are consistently having a significant positive correlation with Firm Age, Market Capitalization and LQ45 which is 4 proxy but the correlation with listing age and price earning ratio not significant and having a negative correlation with BHAR. Price Earning Ratio are consistently having a significant positive correlation with Market Capitalization, BHAR and LQ45 which is 3 proxy but the correlation with CSR Award, firm age are not significant and having a negative correlation with listing age. Firm Age are consistently having a significant positive correlation with CSR Award, Listing Age, Market Capitalization and LQ45 which is 4 proxy, but not significant correlation with price earning ratio and negative correlation with BHAR. Listing age are only able to have one positive correlation with firm age which is only 1 proxy and having not significant correlation with CSR Award and LQ45 but also negative correlation with Price earning ratio, market capitalization and BHAR. Market Capitalization are consistently having a significant correlation with CSR Award, Price Earning Ratio, Firm Age, and LQ45 which is 4 proxy but not significant correlation with BHAR and also negative correlation with listing age. BHAR are consistently having a significant correlation with price earning ratio and LQ45 which is only 2 proxy and not significant correlation with market capitalization and also negative correlation with CSR award, Firm Age and listing age. The novelty measurement of this research LQ45 index are proven and it can be able to become the relevant measurement for firm reputation because the media are giving more attention to a listed firm more than a non-listed firm but with the changing of technology era. A non-listed firm are also able to be easily get attention from the media because of easiness to get social media attention. That's how nowadays startup businesses are able to get more media attention than listed firm like before. This research found out that listing age are no longer a relevant thing with your firm reputation just like how start up business able to cover the media more than listed firm in nowadays. Which is the main reason that listing age are no longer a relevant measurement for firm reputation.

Buy and Hold Abnormal Return are also no longer a relevant measurement to measure firm reputation. This result also stated that firm reputation can no longer bring out maximized profit to the shareholder. This results are different from resourced based theory which is firm reputation was an intangible asset that can be used as an leverage for firm to maximize their share return (Edi et al., 2020b). This result could be cause by with the increasingly competitive capital market in nowadays. Investors are no longer symbolize good stock returns as a symbol of the company’s reputation but stock returns are more as things that are not related to the company’s reputation such as the results of market speculation or stock bubbling carried out by stock traders, this is allegedly the reason why BHAR can no longer be a relevant measurement for the company’s reputation.

Price earnings ratio are still a relevant measurement for firm reputation (Edi et al., 2020a, 2020b; Edi & Sussanti, 2021; Kaur & Singh, 2018). The reason could be firm reputation is the result of equating perception with reality. The company’s actual results in terms of profit and market share are combined with stakeholders in forming an impression, namely its reputation. A good perceptual assessment indicates the company’s position has a clear future. Companies with high price-earnings ratios indicate that the company is preferred by investors (Edi et al., 2020b). Price-earnings ratio expresses the perception of investors towards the company, when price-earnings ratio is high, cover all kind of company whether it is listing or not listing, which this trend are changing the way people looking at listed firm versus non listed firm. Previously, listing firm will be able to bringing out coverage media to the market because the media are giving more attention to a listed firm more than a non-listed firm but with the changing of technology era. A non-listed firm are also able to be easily get attention from the media because of easiness to get social media attention. That's how nowadays startup businesses are able to get more media attention than listed firm like before. This research found out that listing age are no longer a relevant thing with your firm reputation just like how start up business able to cover the media more than listed firm in nowadays. Which is the main reason that listing age are no longer a relevant measurement for firm reputation.

**Further discussion**

This research found that listing age are no longer a relevant measurement to measure firm reputation. This result could be could be nowadays media coverage are able to

<table>
<thead>
<tr>
<th>Spearman Correlation Test</th>
<th>CSR Award</th>
<th>Price to Earning Ratio</th>
<th>Firm Age</th>
<th>Listing Age</th>
<th>Market Capitalization</th>
<th>BHAR</th>
<th>LQ45</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSR Award</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Price to Earning Ratio</td>
<td>.016</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm Age</td>
<td>.101***</td>
<td>.026</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listing Age</td>
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<td>-.001</td>
<td>.463**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market Capitalization</td>
<td>.335**</td>
<td>.373**</td>
<td>.085*</td>
<td>-.015</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BHAR</td>
<td>.053</td>
<td>.100**</td>
<td>-.101**</td>
<td>-.012</td>
<td>.053</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>LQ45</td>
<td>.329***</td>
<td>.093*</td>
<td>.196***</td>
<td>.062</td>
<td>.577** –.105***</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

*Notes: ** Correlation is significant at the 0.01 level (2-tailed); * Correlation is significant at the 0.05 level (2-tailed).*
it indicates that investors are optimistic and willing to invest in the company. This could also interpret firm reputation in investors’ perceptions (Edi et al., 2020b). In general, the price earnings ratio shows that investors are willing to pay as much as the company’s profit. Price earnings ratio is a good indicator for a company’s financial health. This figure signifies current earning capacity and potential future value that investors interpret in terms of future prospects. Price earnings ratio can serve as a guide for investors to choose stocks of companies that offer companies that have a high attractiveness or firm reputation among investors.

CSR award are still a relevant measurement for firm reputation (Rahta et al., 2021; Carter et al., 2021; Edi & Susanti, 2021; Fan et al., 2021; Javed et al., 2020) due to society and business are two forces that are interconnected and cannot be separated. The growth of both is mutually beneficial and no company can achieve the pinnacle of success without being socially responsive. Companies that do not carry out social activities will not last long in the business world (Cellier & Chollet, 2016). The reason Companies are carry out CSR actions not because of pressure from government regulations but indeed the company knows the potential benefits of these activities. Firm reputation has been identified as a motivator for companies to engage in CSR activities. CSR and reputation are two things that cannot be separated (Javed et al., 2020). CSR activities can actually convey a lot more than what is contained in financial reports and build a favorable image in stakeholder perceptions (Carter et al., 2021). Various certification and awards for the CSR category are given annually to companies that have made outstanding achievements in the CSR field. This is equivalent to the Oscar, grammy, awards to Hollywood artists. The award drew media attention to the company and thus provided intangible benefits to the company.

Firm age is still a relevant measurement for firm reputation (Edi & Susanti, 2021; Kaur & Singh, 2018) due to company that can have a long life is a combination of a healthy resource base, deep experience and stability. New companies always give insecure feels for stakeholders because they are not used to new companies and doubt their potential. Young and new companies provide an image or image that limits them from the old, established companies. Young firms have the potential to channel more growth opportunities but at the same time, this also represents a high level of risk compared to incumbents. Companies tend to learn over the years to gain experience in various fields, and build a strong network with stakeholders to get an established position that the stakeholders perceive. Investors will have more confidence in investing their funds in companies that have been established for a long time than in companies that are newly established. Stakeholders prefer the old company and expect the company to be better known by the public than the new company. The more time the company has in business, the greater the opportunity to build a perception of positive firm reputation.

Market capitalization are still a relevant measurement for firm reputation (Claussen & Hirth, 2016; Edi & Susanti, 2021; Kaur & Singh, 2018) because of share performance are influenced by the company’s financial performance from tangible assets and intangible resources owned by the company. The reason for the difference in the market value of the two companies is the same in all respects but different, this difference is always associated with the ownership of an intangible asset such as firm reputation. High market value represents good public opinion about the company. Companies with high market capitalization are supported by a history of stable growth and consistent performance that has increased investor confidence. Companies that describe high market capitalization gain better reputation ratings, therefore high market capitalization companies have a superior firm reputation. In general, high market capitalization defined a more valuable company. It can be concluded that high market capitalization includes a good reputation and it is wise to use market capitalization as a proxy for public opinion. Due to its good reputation in the market the company enjoys a better market position than its competitors.

The novelty of this research found out that LQ45 can be used as a new measurement for firm reputation. This conclusion was also supported by signaling theory (Mishina et al., 2012), which means that information and uncertainty encourage investors to look for other clues in choosing the best investment. LQ45 is an easy and structured guide that can be obtained by investors. Investors can use LQ45 as a benchmark to compare with other companies and choose the best from them. The LQ45 index is one of the indicators of the Indonesian stock market index. Companies listed on LQ45 are the most liquid companies and are the top 45 companies. So it is likely that investors will prefer more stable companies (Lestari & Sulistyawati, 2017). There is a public’s belief in stocks in LQ45 where these stocks have better financial strength than stocks outside LQ45. LQ45 indexed stocks are usually called blue-chip stocks. This belief cannot be separated from the perception of risk held by the public where stocks in LQ45 have a smaller risk than stocks outside LQ45. The LQ45 index is an index of a collection of stocks with a good level of liquidity and can be a good reference for investors, traders, brokers, and stock analysts to see stock and market developments. Some investors feel calmer by investing their funds in stocks that are in LQ45 compared to stocks that are outside LQ45.

Conclusions

The purpose of this study are to find out whether the current used measurement for firm reputation are still a relevant measurement to measure firm reputation, this research found out that listing age are no longer a relevant measurement to measure firm reputation this result are cause by the easiness to get media attention are making listing firm privilege for media attention are no longer as an advantages for listed firm. In today's extremely
competitive capital market, the buy and hold abnormal return is no longer a useful metric for assessing a company’s reputation. Good stock returns are no longer indicative of a company’s investor reputation on the contrary, the company’s real earnings and market share are coupled with stakeholders in order to produce its reputation, as a consequence, the findings suggest that the price-to-earnings ratio is still a useful metric for assessing a company’s reputation. Because society and business are two forces that are intertwined and cannot be separated, CSR awards are still a meaningful benchmark for corporate reputation. The growth of both is mutually beneficial, and no firm can achieve success without being socially sensitive. The potential of a new firm is frequently questioned by stakeholders. Because a company may have a long life is a mix of a strong resource base, deep expertise, and stability, the age of the company is also a meaningful statistic for firm reputation. Because share performance is impacted by the company’s financial performance from tangible assets and intangible resources owned by the company, market capitalization is still an useful assessment for corporate reputation.

The novelty of this research able to find out a new measurement for firm reputation which is index LQ45 are a very relevant measurement to measure firm reputation. When a firm is qualified to be listed in this index, they tend to have smaller risk compare to the firms that are not listed which cause the popularity of the firm rise in the eyes of investor. Being able to be listed in LQ45 index, the firm must be able to have a sustain liquid stock transaction which is the proof that the firm are very popular in the eyes of investor which be able to make the firm stock are able to have a high transaction rate in the stock market.

The managerial implication of this study contribute to helping management when taking decision by focusing resources to manage the firm reputation, by focus to make firm stock be listed in LQ45 index, it will automatically bring the firm reputation to another level, being able to rank as the top 45 from the whole Indonesia Stock Exchange listed firm are another achievement for the firm to boost their reputation. By choosing the right path to focus resources, it will make the firm more efficient when raising the firm reputation. Helping listing firm to be more able to know the target to achieve in order to increase the firm reputation.

This study also contributes to find out that LQ45 index can be used as a new measurement for firm reputation based on signaling theory. This contribution will be useful for further research in firm reputation's research. Helping researcher easier to measure firm reputation which will be helpful to motivate researcher to research more about firm reputation.

The limitation of this study is that the measurement that being analyzed are only secondary data. Which is limited the result that only measuring firm reputation based on the management and shareholder perspective. Firm reputation is a very vast statement that can represent a much more meaning not just from shareholder perspective, the other limitation was LQ45 are only limited for Indonesian listed firm, which means that its won’t be applicable for non-listed firm and non-Indonesia Firm.

Further research should expand the measurement analyst to the primary data like customer perspective (Tanggamani et al., 2020) and vendor perspective (Spagnolo, 2012) in order to analyze whether these secondary measurement are having the same correlation with other majority measurement to prove that these secondary data measurement are a relevant measurement for firm reputation.

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References


