

The Influence of Upstream and Downstream Supply Chain Management on the Indonesia Stock Exchange

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Abstract— This study aims to analyze the effects of supply chain influence on initial Public Offering (IPO) and its implications on long term underperformance which is peroxided with the IHSG of IPO shares on the Indonesia stock exchange. IPO in this study is in 2016 with an analysis of 5 years period (2016-2020). The method used is the Purposive Sampling Method. Population implementation of the IPO in 2016 with a sample of 10 companies selected. Upstream and downstream supply chain phenomenon in this study made an IPO on the Indonesia stock exchange at 100% in the 2016 IPO. For the first analysis shows that the company age variable influences the SCM in the company that made an IPO in 2016 on the Indonesia stock exchange and simultaneously the age of the company, company size, capitalization, volatility, interest rate and rupiah exchange rate have a significant effect on SCM. For the second analysis, the variable long term underperformance in 2016 with a 5-year analysis (2016-2020) has a significant effect on the variable capitalization value, interest rate, and exchange rate of Rupiah. Simulate also include variable company age, company size, capitalization value, volatility, interest rate, dollar exchange rate and SCM stock price significantly influence. This study strengthens previous researchers that showed a high level of SCM, so supposedly the longer the company operates and improve the efficiency in long-term. Thus, firms' managers could improve their performances by adopting plans and policies in the field of financial supply chain through the upstream, mid-stream and downstream in supply chains.

Keywords— Company Age, Company Size, Upstream, Downstream, Supply Chain, Long term Underperformance.

1. Introduction

The economic growth of a country in a modern economy depends on the existence of an efficient financial sector. One important component of the financial sector is the Capital Market. Efficient Capital Market Theory The concept of capital markets was first put forward by [1]. Capital markets are said to be efficient if no one, both

individual investors and institutional investors, will be able to obtain an abnormal return, after adjusting for risk, using the existing trading strategy. That is, the prices formed in the market are a reflection of existing information or "Stock price reflect all available information".

Explanation of the Capital Market Law No. 8 of 1995 emphasizes that the Capital Market aims to support the implementation of national development in order to increase equity, growth and national economic stability towards improving people's welfare. In order to achieve these objectives, the Capital Market has a strategic role as one of the sources of financing for the business world, including medium and small businesses for business development, while the other is the Capital Market is also a vehicle for investment for the community, including small and medium-sized investors.

At present the role of the Indonesian capital market in supporting National development increasingly shows an increasing trend. The benefits of the capital market are not only felt by the private sector (companies/issuers), but also the Government which has several times managed to offer Government Debt Securities to support the Revenue Budget and State Expenditures.

Capital Market has a very strategic role in supporting national economic growth through raising public funds to finance business activities. The progress of the capital market can be seen from various indicators including, the number of companies seeking funding sources from the capital market.

The sale of company shares through the mechanism of the IPO has long been carried out in developed countries. In the 1980 to 1991 period in the United States, IPO activities were carried out on 5798 companies or on average 483 companies per year, [2]. The IPO in Indonesia only started since the 1980s. Until the end of 1990 there were only 74 companies that listed their shares on the stock exchange. From 1991 to the beginning of 2011 there has been a very rapid growth in the implementation of IPO in the capital market, namely to become 473 companies with a capitalization value of IDR 2,860.82 trillion. However, for the privatization process, state-owned

companies are still very small in number. Of the 141 state-owned companies consisting of 18 new sectors there are 18 companies that have been conducted IPOs in the period 1991-2011, namely those that began with the company Semen Gresik and finally Garuda Indonesia company.

Uncertainty, they are perceived investor [3, 4], investors are generally considered not to have information about the value true of the issuer, as a result of uncertainty arises. Uncertainty is also thought to occur based on the type of industry the issuer. With the amount of assets or relative industry requires large capital, then investors are more confident of the value of the shares. So that the industrial sector where the issuer is classified also reduces uncertainty. Previous ownership is also thought to reduce/increase uncertainty. With the existence of bona fide shareholders before, the uncertainty level will decrease, especially, if the shareholders are the government. Thus SCM is done to compensate for uncertainty from investors.

Signaling quality and leave a good taste of [4] hypothesis, [5-7] issuer has superior knowledge the value of the company compared to investors. Through an IPO, issuers try, among others, to give a signal about the quality of their company. Good quality is expected to provide high returns for investors. For this reason, the bid price is set lower than the actual value so that there is SCM. The long - term goal is when the issuer conducts a seasoned equity offering or offers the next share to the stock exchange, investors will perceive the quality of the issuer to be good based on previous experience.

Hot and cold issue [8-11], hot Issue is a period in which the number of issuers conducting IPOs is higher than other periods. In order to attract investors, issuers whose IPOs in the hot period will do SCM to attract investors, whereas in the cold period, investors have limited choices, and tend to do less SCM.

The year 2016 was the right year for the authors to conduct research because in 2016 it was the implementation of a comprehensive IPO that the condition of 100% SCM IPO shares, Initial stock trading has a very high attractiveness to do research. This is because in every IPO occurred SCM anomaly is a phenomenon trading its stock price increase very significantly shortly after the recording of IPO in Stock Exchange Indonesia. Some studies explain why the price of the initial offering is lower than the first day of trading in the secondary market. In [12] explains that SCM a result of the uncertainty of the stock price on the secondary market because the company rated lower than actual conditions by underwriters (Underwriter) to reduce the level of risk that must be faced as a function bail. In [13] explains

that SCM company's IPO is the difference between the initial offering price at the closing share price of companies IPO in the secondary market on the first day. The tendency SCM happen almost in each state differentiate just how big the SCM happened. Several empirical studies have documented the existence of the SCM phenomenon for newly listed companies on the first day of stock trading. The preliminary study of the phenomenon of the phenomenon of under- pricing is mostly done on the stock market to offer shares on the primary market. Research on the phenomenon of SCM in IPO was first carried out by the US Securities and Exchange Commission (SEC) in 1963. More than 10 years later, [14] conducted the same research in the United States and obtained results that the initial average the return obtained by investors when buying shares through the IPO mechanism is 16.83%. After that many similar research of IPO process in the countries of Europe and various countries developed and developing. However, although there has been a lot of research done, it turns out that there are still many puzzles that have very many variations and are interesting for the next research.

In [15] explains that SCM or positive Initial Return on the primary market is due to ex-ante uncertainty, namely price uncertainty in the future. Asymmetric information can occur between the issuer and between investors. In [16] in their study revealed that one of the proxies is the volatility of changes in stock prices after shares are traded on the stock. As much as Volatile is, the bigger the ex. SCM is an interesting phenomenon because it is experienced by most capital markets in the world and is often found in the prime market, [17], SCM phenomenon arises because of the asymmetry of information, which creates ex-ante uncertainty. The ex-ante uncertainty poses a risk for Underwriters and issuers because it relates to the company's value of the company. The purpose of investors is to use information about the issuer's company to find out about the condition of the company at this time and how to expect it in the future. This effect can be predicted by using company profit persistence [18]. In reducing the occurrence of asymmetric information, companies that will go public must issue prospectus that have been audited by registered public accountants for a minimum of two consecutive years. Information contained in prospectus contains accounting information and non-accounting information. Accounting information is financial statements consisting of Financial Position Reports, Comprehensive Profit and Loss Statements, Cash Flow Reports and reports on financial statements, while non-accounting reports are information other than financial statements such as company age, auditor, IPO value, percentage of shares which is held by the old owner of the size of the company and other

information. Prospectus aims to draw operational conditions so that investors know the existence of the company's performance as well as its future procedures and reduce the occurrence of SCM and overpricing. Information contained in prospectus can be the basis for investors to invest. Empirical evidence that companies that list profit forecasts (Earning Forecast) in prospectus tend to experience lower levels of SCM than companies that do not include profit forecasts, [19]. The empirical results of [20-25] show that non-accounting information is used by investors in making investment decisions.

2. Literature Review

2.1 Arbitrage Pricing Theory (APT)

Arbitrage Pricing Theory (APT): This Theory was first put forward by [26], according to [27]: APT can include several risk factors, so the desired level of profit can be a function of two, three, four or more factors. APT was developed from the CAPM-Security Market Line. To illustrate the APT concept, suppose that all profits of stocks depend only on three risk factors: inflation, industrial production and the sum of the degree of aversion to risk (the costs of taking risks, which we assume are reflected in the distance between yields on treasury bonds with short-term bonds (treasury bills).

2.2 IPO Theory

According to the Study Report Potential number of companies that can do Go Public in the Indonesian Capital Market Capital Market Supervisory Agency which is now the Financial Services Authority of the Ministry of Finance of the Republic of Indonesia in 2009, companies that successfully go public (IPO) are companies who successfully transformed, namely from a private company that successfully became a successful public company. The capital market is one source of long-term funds. If the choice of the company is the issuance of shares, for the first time publishing on the capital market is called the IPO and traded on the secondary market. The stock price on the primary market is determined based on an agreement between the stock issuing company (issuer) and the underwriter (underwriter). Whereas in the secondary market is determined by the market mechanism. In determining stock prices, there are three possibilities that occur, first, prices on the secondary market are lower than prices in the overpricing market. Second, prices on the secondary market are equal to the prices on the true-pricing market. The third possibility is that prices on the secondary market are greater than the prices on the SCM.

If the first possibility occurs, the issuer will benefit because the funds that enter the company will be

large. But in reality the average price at the time of the IPO is lower than the market price (SCM). According to [28], conflicts of interest between underwriters and issuers cause the underwriter to set prices below what they should, especially, if the underwriter uses "commitment". This is intended to ensure that IPO shares can be sold as a whole, so that the risk borne by the underwriter will decrease if there are unsold shares. But SCM can also occur because of the wishes of the issuer himself, because they want their shares to be liquidly traded after the IPO, [29]. The more liquid a stock indicates the more attractive the company's shares are intended for investors.

2.3 SCM Theory

In the process of going public before the shares are traded on the secondary market, first the shares are traded on the primary market, to determine stock prices, generally, when the IPO is lower than the price that occurs in the secondary market. SCM is a condition where, on average, the market price of shares that have just gone public, usually on a daily or weekly basis is higher than the price of the offer. In other words, SCM is a phenomenon where prices are offered on the secondary market (when it enters the stock) lower than the closing price on the first day on the secondary exchange.

Determination of SCM at the initial price is based on several objectives, namely to build an investor's image of the quality of the company and provide a signal that contains information about the true value of the company. Besides that, SCM is also used as a litigated insurance. In the case when investors lose money from the purchase of shares of the issuer and find that there are facts that are not disclosed in the prospectus. To avoid future demand, SCM is done to minimize the possibility of investors losing money, so that lawsuits can be avoided if things are not disclosed in the prospectus. SCM is also done when in that period there were many IPOs. To attract investors, the bidding price is lower than the actual value of the stock.

SCM involves issuers, investment bankers and capital market investors. All parties have their respective interests in the IPO case. Issuer wants its shares to be offered at the highest prices and can be absorbed by the market. Investment bankers as mediators play a role, among others, as guarantor, distributor or sales agent as well as an appraiser of the price to be offered (offering price). Investment bankers also have an interest so that all shares offered are sold out, for two reasons. Fees will be obtained as well as reputation in the future. Guarantee fees in some cases depend on the amount of shares sold. The reputation of investment bankers is shown, among others, by stocks that are oversubscribed. Investors have an

interest in getting the maximum return from their investment, for that he is trying to get valuable "cheap" shares.

2.4 Resource Dependency Theory (RDT)

Resource Dependency Theory (RDT) pioneered by [29] suggests that company resources are heterogeneous, not homogeneous, and available productive services come from company resources that provide special (unique) characters for each company.

Based on the development of organizational theory in the following period [30] can prove that contingency factors of the organizational environment largely determine the success of achieving organizational goals. According to [31] say that the focus of the RDT is on the appointment of representatives from independent organizations as a means of gaining access to critical resources so that companies can achieve success.

Intellectual Capital is one of the data sources owned by the company. [32] divide Intellectual capital in three resource is human capital (human resources), structural capital (resources structural), and relational capital (resource relation). Human capital includes knowledge, skills, competencies and knowledge possessed by employees. Structural capital includes corporate organizational culture, information systems and technological adaptation, whereas relational capital consists of consumer loyalty, service quality and good relations with suppliers.

Intellectual capital is one of the most important resources. If the company can optimize the performance of intellectual capital maximally, the company will have an added value that can provide a value of the superiority of a company.

2.5 Stewardship theory

Stewardship theory is a theory that describes a situation where managers are not motivated by individual goals but aim at the main results for the benefit of the organization. The basis of stewardship theory is psychology and sociology where executives as stewards are motivated to act in accordance with the principal's wishes, which try to maintain and generate profits for principals, with steward behavior that will not leave the organization [33], where differences with agency theory are that stewardship theory emphasizes not on the perspective of individualism, but rather integrates their goals as part of the organization, in which the stewards will feel satisfied and motivated when the organization they run succeeds in gaining success.

2.6 Anomalies for Long-Term Returns

Some market anomalies that result in a decrease and increase in long-term returns under the following. Anomaly - This anomaly among which is the return of a long-term negative for the IPO and SEO, return long numbers negative for merger, return the long-term positive for the stock split, the return of a long-term positive for the tender offers and stock repurchases, return the long-term negative for new listings, positive long-term returns for dividend initiations, negative long-term returns for dividend omissions, positive long-term returns for negative long-term spinoffs returns for proxy contests. Explanation can be seen in the book "Efficient Markets in Information, Operations, and Decisions of Hartono, Jogiyanto, Second Edition, BPFE, Yogyakarta.

2.7 Positive Accounting Theory

Positive theory cannot be separated from dissatisfaction with normative theory, [34]. Furthermore it was stated that the rationale for analyzing accounting theory in a normative approach was too simple and did not provide a strong theoretical basis. To reduce the gap in the normative approach, [34]) develop a more positive approach to empirical research and justify the various accounting techniques or methods currently used or look for new models for the development of accounting theory.

According to [34] the purpose of accounting theory is to explain and predict accounting practices. Explanation describes the reason why a practice is carried out.

According to positive accounting theory, accounting procedures used by companies do not have to be the same as others, but companies are given the freedom to choose one of the available alternative procedures to minimize contract costs and maximize company value. With that freedom, then according to [35] managers have a tendency to do an action which according to positive accounting theory is called opportunistic action (opportunistic behavior). So, opportunist action is an action taken by a company in choosing accounting policies that benefit and maximize the satisfaction of the company.

2.8 Agency Theory

According to [36] agency theory can also explain the order of broader business practices, namely for companies that will and have conducted IPO. Many parties related to companies that carry out IPO. First, company owners, shareholders, and potential investors are as principals. Second, the management of the company is as an agent. Third, independent auditors, underwriters, independent commissioners and audit committees as intermediaries to reduce the occurrence of

information asymmetry between principals and agents.

Presentation of financial statements is the final product of financial accounting. The important thing in financial accounting is valuation/measurement through a balance sheet approach or income statement. In the first approach (balance sheet approach), accounting rule determines the value carried on the balance sheet, and this change in value leads to measurement of revenue and expenses. In the second approach (profit-loss approach) is to determine directly revenue and expenses, and this will be useful for updating the balance sheet value of the previous period, [37].

Statement of Financial Accounting Standards No. 1 states that the purpose of the financial statements is to provide information about the financial position, performance and cash flow of the company that is beneficial to the majority of report users in order to make economic decisions and to show management accountability for the use of the resources entrusted to them.

2.9 Signaling Theory

In [38] first stated that the company's stock price will change when there is a change in dividend payments. With the increase in dividend distribution provides information (a sign) for investors that the company in the future has good prospects. Furthermore [39] based on economic theory, namely information that is not symmetric (asymmetric information) becomes one of the causes of market failure where due to incomplete information between the two parties (usually when on the market is between the seller and the buyer has no information the same between managers (issuers = sellers) and investors (buyers) also have information that is not symmetrical and this will cause one party to be harmed.

Signal theory is used to explain that basically information is used by the company to give positive and negative signals to the wearer. According to [40] signal theory explains why companies present information for capital markets. Signal theory indicates the existence of information asymmetry between company management and parties with an interest in that information. Signal theory suggests about how companies should give signals to interested parties.

In [41] analyzed the role of signals in the process of the IPO. This shows how companies with good future perspectives and the possibility of higher success must always send clear signals to the market when going public (for example the owner must still control a significant percentage of the company).

In [42] also reveal the concept of signal theory in the phenomenon of SCM. SCM is stated as a

mechanism to signal the quality of a company. So, companies which have good quality do SCM of their shares in order to obtain successful sales when offering shares in the future.

Meanwhile, according to [43] SCM when the IPO is a signal for the quality of the company that is useful when conducting a subsequent stock offering known as the signaling model. Companies with good quality choose SCM as a signal to show that the quality of their company is different from other companies. The implication of this signal is that the company expects the level of SCM when the stock offer is aftershock is not as high as at the IPO.

SCM phenomenon stated by [41], namely the signaling hypothesis. In this context SCM is an equilibrium phenomenon that serves as a signal to investors that the condition of the company is quite good or has good prospects.

Signal theory also states that good quality companies will deliberately signal to the market, thus the market is expected to be able to distinguish between good and bad quality companies (separating equilibrium). When conducting a public offering, prospective investors cannot fully distinguish between good and bad quality companies. Therefore, issuers and underwriters will intentionally signal to the market which is a positive signal that the issuer is trying to provide to show the quality of the company at the time of the IPO (IPO), [40].

2.10 Earnings Management Theory

From an ethical point of view, [13] states that earnings management is an intervention with certain objectives in the external financial reporting process, to obtain some personal benefits (as opposed to facilitating the neutral operation of the process). In [3] defines earnings management as the act of a manager by presenting a report that increases or decreases the current period's profit from the business unit that is his responsibility, without causing an increase (decrease) in the unit's long-term economic profitability. Whereas according to [40], earnings management occurs when managers use judgment in financial reporting and preparation of transactions to change financial statements, with the aim of manipulating the magnitude of profits to several stakeholders about the company's economic performance or to influence results agreement (contract) that depends on the accounting numbers reported.

Based on PSAK No. 1 and Beaver's statement [19] can be stated that earnings management carried out by management is based more on actual management, and more specifically actual discretion. Discretionary accrual policies carried out by management carry two consequences. First, if the policy brings profit information, then the policy will improve the quality of earnings, so that

earnings are increasingly persistent. If the policy does not bring profit information (uninformative earnings), then the policy will reduce the quality of earnings, so that profits become fuzzy (opaque).

2.11 Efficiency Market Hypothesis Theory

The concept of efficient capital markets was first put forward by [1]. Capital markets are said to be efficient if no one, both individual investors and institutional investors, will be able to obtain abnormal returns, after adjusting for risk, using existing trading strategies. That is, the prices formed in the market are a reflection of existing information or "stock prices reflect all available information" Another expression states that in an efficient market the prices of assets or securities quickly and intact reflect the information available about the asset or securities.

The flexibility and variety of sources and/or types of information available will allow investment to get information quickly and even free. The picture below illustrates how the market reacts to information whether "information is good" or "bad information". If the market is efficient, the price will experience an immediate correction and then move steadily. If it takes time for the market to make price adjustments or a reaction occurs, the market cannot be used efficiently. In an efficient market, each type of information will have a direct impact on security prices. Information is obtained in a random and free form that can appear at any time. That is, almost all investors cannot predict when the root company announces the development of new products.

If the fourth condition is fulfilled, it is clear that the predictable outcome is that investors will immediately make adjustments whenever new information comes to market. Anyway, the price change is independent and not affected by the days and prices move in the form of random (random walk). This means that today's prices are not affected by yesterday's price, because the prices established today is not affected by yesterday's price, because the prices established today occurs based upon the new information coming into the market and accepted by the market.

2.12 The Winner's Curse of Rock Theory

Information asymmetric occurs when there is one party that has more information about the issuer or shares that will be issued by the issuer. The most influential theory among many models that explain information inequality is the Winner's Curse of [17] theory. In this theory, an assumption is used that some investors have more informed investors about the value of the company than uninformed investors. Armed with this information, the first type of investor will only buy attractive IPO shares. While the second group of

investors bought new shares in each IPO. Thus, the second group of investors will receive almost all of their orders on unattractive shares and only part of the shares that are attractive in the IPO because demand for attractive shares will always be oversubscribed. As a result, uninformed investors obtain lower returns than average SCM, [4]. In the event that there is no SCM, the expected return that will be obtained by the second group of investors will be negative and consequently will no longer buy shares in each IPO. Rock also assumes that the IPO market requires requests from uninformed investors when the number of requests from informed investors is smaller than the number of shares to be issued, [15]. The second group of investors will only invest in an IPO if only a positive return or no loss is obtained so that the existence of SCM is needed.

2.12 Institutional Theory

One of the institutional theories of [12], explains that SCM is a protection or protection against legal problems. With the existence of SCM, a company reduces the possibility of lawsuits regarding incorrect or incomplete information. [13] define the potential of investors as "the extent of the laws that protect investors' rights and the strength of the legal institutions that facilitate law enforcement".

The relationship between SCM and protection of investors has been developed by many researchers. Based on the results of La Porta's research, [19], it was concluded that law and enforcement that protect investors can explain the differences in capital market development and corporate ownership structures. The conclusion obtained by [20] also shows that the number of companies that go public (IPO) and stock market capitalization have a positive relationship with a collection of investor rights, the origin of a country, and the laws and traditions in a country. Next is [21] also concluded that the obligation for information disclosure and accountability standards for issuers, accountants, directors and distributors became very important factors in the development of the capital market.

2.13 Control Theory

In this theory, it is explained that SCM is a means to keep control of his company and to protect his interests to obtain personal benefits. Brennan and [22] concluded that SCM could lead to additional demand by investors and share ownership would be more widespread.

2.14 Long Run Theory

According to [24] that investors will be very optimistic about buying shares during IPO, but after some time the volatility value will be lowered followed by marginal investors to make stock price

valuations and the result is an average price (means valuation) whose price below the IPO price so the price will go down.

While [24] said that many IPOs were carried out only because of participating in a successful IPO, even though the company's performance was indeed below average. Whereas [24] said that the accounting performance of the company was worse at the time of the post IPO than per IPO. [26] stated that the occurrence of underperformance of stock prices in the long run is because managers are too optimistic. In [25] said that the pre IPO accounting data was too optimistic, not giving a signal of difficulties in the company's operating period.

2.15 Composite Stock Price Index

We explored the stock market impact of supply chain disruptions for public companies in Indonesia. The stock price index is an indicator or a reflection of stock price movements. The index is one of the guidelines for investors to invest in the capital market, especially stocks. Currently the Indonesia Stock Exchange has 11 types of stock price indices, which are continuously disseminated through print and electronic media.

2.16 Factors affecting SCM

The factors that affecting SCM, among others:

1) Company age

The age of the company indicates that the company has stood for a long time, with the age of the company. There will be many people who will get to know the company so that information circulating in the community is expected to occur as often as the Asymmetric Information on the primary market. With the age of the company getting older it also indicates that the company has been managed well, has good performance, so that it is able to maintain the company from the first time it has been established until now, so that the older the company, the phenomenon of SCM when public offers are expected to be avoided.

2) Company Size

The size of the company can make the size of the company, with the greater the company it is expected that more and more people or investors will know about the company, and with the greater the company the information circulating in the community is also increasing because companies with larger sizes are easier to find the company information is therefore expected that the asymmetric information that often occurs on the primary market does not occur. The larger the size of the company, the better management managed by the company will have a good performance, the size of a company is marked by the amount of assets owned or set continues to increase so that

company uncertainty will decrease, because companies with large scale tend not to be affected by market conditions but more influence the market conditions, [10] and large size companies have a lower risk, thus avoiding the phenomenon of SCM.

3) Share capitalization

In [28] found that it was important to consider the crisis and non-crisis periods separately when estimating VaR at various sizes. This study provides evidence that market fundamentals are relevant for risk measurement. In [29] suggests the market price multiplied by number of shares outstanding will then be able to market value or so-called market capitalization. Market capitalization is a business term that shows the overall price of a company's stock, a price one must pay to buy an entire company. The size and growth of a company's market capitalization are often important measurements of the success or failure of a public company, the term capitalization is used as a synonym of market capitalization and market capitalization. So the more expensive the stock price of a company in the market and the more the number of shares circulating in the market will make the company's market capitalization even greater.

4) Volatility

In [30] Researchers explain that there are special volatility return premiums that cannot fully explain what we find about the role of arbitration limits in the price of special volatility in the Chinese stock market. The researchers point out that trade barriers introduced in the name of protecting individual investors can actually hurt them, because these additional arbitration limits will increase security market inefficiencies. Volatility is the amount of movement of stocks from time to time, while in the statistics the measurement is standard deviation (stock of deviation), shares are one of the most popular forms of investment, shares issued by companies to obtain capital, shares in the form of letters of evidence of depositing funds of investors to the company, the company that issued the shares to the public owned company called open (Go public). The stock trading mechanism regulated by the Indonesia stock exchange (BEI) is supervised by the Financial Services Authority.

5) SBI Interest Rate (BI Rate)

Based on the explanation given by Bank Indonesia (www.bi.go.id), BI Rate is the interest rate policies that reflect the attitude or stance of monetary policy set by Bank Indonesia and announced to the public. The BI Rate is announced by the Bank Indonesia Board of Governors at each monthly Board of Governors Meeting and implemented in monetary operations conducted by Bank Indonesia through liquidity management in the money market to achieve the operational objectives of monetary policy.

The operational targets of monetary policy are reflected in the development of Overnight Interbank Money Market (PUAB O / N) interest rates. The movement in the interbank rates is expected to be followed by developments in deposit rates, and in turn bank lending rates.

6) Dollar Exchange Rates

Dollar Exchange Rates is an agreement known as the currency exchange rate for payments now or later, between two currencies of each country or region.

In [31] the part of systematic variation (SSV) in bilateral exchange rates varies greatly between

currencies and over time. The researcher provides evidence of a strong relationship between SSV variations and variations in the size of the effect of the euro on the US dollar against other currencies. Strong relationships are mainly due to the fact that (i) changes in the average exchange rate against the dollar, called the dollar factor, are the main drivers that produce variation in SSV and (ii) dollar factors are very positively correlated with changes in the euro/dollar exchange rate.

Based on the above theory review, the framework can be described as follows:

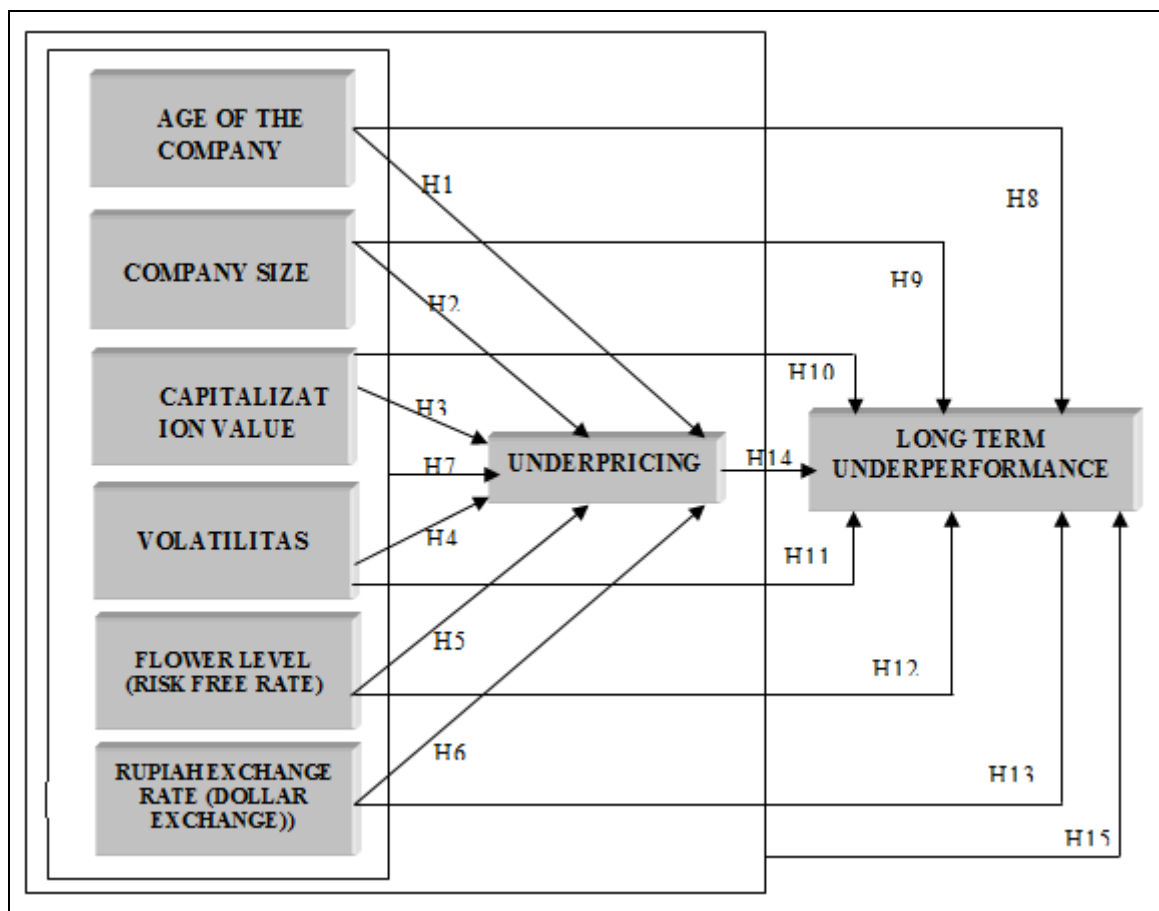


Figure 2 . Framework

2.17 Research Hypotheses

Research Hypotheses as follows:

- H1 : There is an influence of company's age on SCM of IPO in Indonesia Stock Exchange 2016.
- H2 : There is an influence of company size on SCM of IPO in Indonesia Stock Exchange 2016.
- H3 : There is an influence of Share Capitalization Value on SCM of IPO in Indonesia Stock Exchange 2016.
- H4 : There is an influence of volatility on SCM of IPO in Indonesia Stock Exchange 2016.
- H5 : There is an influence of interest rate on SCM of IPO in Indonesia Stock Exchange 2016.

- H6 : There is an influence of Rupiah Exchange Rate on SCM of IPO in Indonesia Stock Exchange 2016.
- H7 : There are influences of Company Age, Company Size, Stock Capitalization Value, Volatilization, Interest Rate, and Rupiah Exchange Rate together on SCM of IPO in Indonesia Stock Exchange 2016.
- H8: There is an influence of age of the company on a long-term underperformance of IPO in Indonesia Stock Exchange 2016.
- H9: There is an influence of company Size on long-term performance of IPO in Indonesia Stock Exchange 2016.

H10: There is an influence of Capitalization of shares on long-term performance of IPO in Indonesia Stock Exchange 2016.

H11: There is an influence of Volatilization on the Long-Term Underperformance of IPO in Indonesia Stock Exchange 2016.

H12: There is an influence of interest rate on long-term underwriting of IPO in Indonesia Stock Exchange 2016.

H13: There is an influence of the Rupiah Exchange Rate on the Long-Term of IPO in Indonesia Stock Exchange 2016.

H14: There is an influence of SCM on long-term Underperformance of IPO in Indonesia Stock Exchange 2016.

H15: There are influences of Company Age, Company Size, Share Capitalization Value, Volatility, Interest Rate, Rupiah Exchange Rate, and SCM together on Long-Term of IPO (IPO) in Indonesia Stock Exchange 2016.

3. Methods

In this study a combination of descriptive and inferential methods was used by using historical data in the period of the 2016 IPO. Descriptive methods are used to provide a general description of the occurrence of the phenomenon of SCM and Long - Term underperformance. Besides being used as a basis for further research into (inference) the results of the analysis of descriptive also be

used as a basic reference in the development of advanced research in the future.

Whereas in conducting research on the factors that influence the emergence of the phenomenon of SCM and Long-Term Underperformance, a panel data regression method is used by developing a model that has already been studied by other parties. In the previous study only five main variables were used, namely: i) Volatilization, to describe market fluctuations ahead of the 1 month listing on the Indonesia Stock Exchange; ii) Size, Company Size at the time of the IPO; iii) Capitalization Value: Market Value Bid on the first day of trading; and iv) Age: The age of the Company begins to stand up to the time of initial issue. Whereas v) variables are added in the form of RFR (Risk Free Rate) as measured by 1-month SBI or BI Rate and vii) Exchange Rate of Rupiah against (\$) 1 month prior to listing on the Indonesia Stock Exchange

3.1 Population

The population in this study is a company that carried out Go Public since 2016 on the Indonesia Stock Exchange (IDX) of 11 companies, covering all issuance of shares on the Ex Jakarta Stock Exchange (BEJ) and Ex Surabaya Stock Exchange (BES) which both merged on December 1, 2007 operates as the Indonesia Stock Exchange as currently available.

Table 1. Development of IPO in 2016

No.	Date	Code	LPO Price	Opening Price	Closing Price	Value	Information
1	03/02/2016	BTEL	107	155	150	0.40	SCM
2	10/02/2016	MAIN	176	230	226	0.28	SCM
3	06/06/2016	BNBA	160	205	235	0.47	SCM
4	07/07/2016	BBKP	301	318	327	0.09	SCM
5	07/12/2016	RUIS	250	350	375	0.50	SCM
6	07/25/2016	TOTL	278	327	298	0.07	SCM
7	09/13/2016	LATA	263	303	273	0.04	SCM
8	10/16/2016	TRUB	110	150	180	0.64	SCM
9	11/28/2016	CPRO	110	165	185	0.68	SCM
10	11/29/2016	FREN	2856	4824	3554	0.24	SCM
11	12/15/2016	SDRA	94	102	118	0.26	SCM
Average Initial Return						0.33	

Source: Indonesia Stock Exchange

3.2 Sample

The sample examined was a company that had conducted an IPO in 2016 and until now it is still listed on the Indonesia Stock Exchange (IDX), there were 11 companies that sold shares to the Public (IPO). So that the sample was chosen only involve 10 companies in the analysis using the purposive sampling method.

3.3 Data Collection Techniques

Techniques in data collection is to use secondary data is used mostly obtained financial information service providers and capital markets (providers) Bloomberg, and Real Time Information (RTI), website companies that already went public and wikipedia.com . Besides

that, it was also obtained from various publications published by OJK, Central Statistics Agency (BPS), Bank Indonesia (BI), Data from TICMI (The Indonesia Capital Market Institute) and other work units at the Ministry of Finance, especially those contained in the website.

4. Results and Discussion

4.1 Hypothesis Test Results

We explored the stock market impact of supply chain disruptions for public companies in Indonesia. Based on analysis and testing of hypotheses for companies conducting IPO on the Indonesia Stock Exchange in 2016, the size of the company was proxied with Asset obtained results.

(1) H₁: There is an influence of Company's Age on SCM of IPO in Indonesia Stock Exchange.

H1 hypothesis proved to be shown by the coefficient of -146.5782 and significance probability of $0.0024 > 0.05$ thus the influence of age companies on SCM of IPO in Indonesia Stock Exchange a negative and significant. So that any increase in the age of the company will reduce the level of SCM of the IPO share price for the relevant company by -146,5782.

(2) H₂: There is an influence of Company Size on SCM of IPO in Indonesia Stock Exchange.

H2 hypothesis is not proven indicated by coefficient of 292.0984 and probability significantly by $0.0743 > 0.05$ thus the influence of company size of proxy for Asset on SCM of IPO in Indonesian Stock Exchange positive and not significant. This means that how much assets are owned, if the assets are not productive, it will not increase profitability for the company concerned

(3) H₃: There is an influence of Stock Capitalization Value on SCM of IPO in Indonesia Stock Exchange.

H3 hypothesis is not proven indicated by coefficient of 0.037181 and probability significantly of $0.1817 > 0.05$ thus the influence of value of capitalization shares on SCM of IPO in Indonesian Stock Exchange positive and not significant. The theory of efficient capital market hypotheses was first put forward by [1]. Capital markets are said to be efficient if no one, both individual investors and institutional investors, will be able to obtain abnormal returns, after adjusting for risk, using existing trading strategies. That is, the prices formed in the market are a reflection of the existing information or "stock prices reflect all available information".

(4) H₄: There are influences of Volatilization on SCM of IPO in Indonesia Stock Exchange.

H4 hypothesis is not proven indicated by coefficient of -7.692119 and probability of significance for $0.7130 > 0.05$ thus the influence of volatility on SCM of IPO in Indonesia Stock Exchange is negative and not significant.

Meaning match history researchers: Volatility is the rate of change in the variables, the more formal statistic difference for measuring of variables such as the price of prices around the mean. A measure of the price variable of the financial instrument of interest rates, commodities, or the underlying currency, volatility only measures the quality of change rather than direction. Volatility is not affected by the direction of change, no matter whether prices rise or fall. Volatility high returns relation to the future of high-risk investment is also bias a called investment profile that is different - different, Conservative, moderator and aggressive that meant by volatility in currency prices.

(5) H₅: There is an Influence of Interest Rates on SCM of IPO in Indonesia Stock Exchange.

H5 hypothesis is not proven indicated by coefficient of -5628,660 and significance probability of $0.1176 > 0.05$ thus the influence of interest rate on SCM of IPO in Indonesian Stock Exchange positive and not significant. As previous Researchers [27], Part of systematic variation (SSV) in bilateral exchange rates varies greatly between currencies and over time. The researcher provides evidence of a strong relationship between SSV variations and variations in the size of the effect of the euro on the US dollar against other currencies. Strong relationships are mainly due to the fact that (i) changes in the average exchange rate against the dollar, called the dollar factor, are the main drivers that produce variation in SSV and (ii) dollar factors are very positively correlated with changes in the euro/dollar exchange rate. In [37], Researchers found that it was important to consider crisis and non-crisis periods separately when estimating Variables at various sizes. This study provides evidence that market fundamentals are relevant for risk measurement.

(6) H₆: There is an influence of Rupiah Exchange Rate on SCM of IPO in Indonesia Stock Exchange.

H6 hypothesis is not proven indicated by coefficient of -0.055703 and significance probability of $0.2658 > 0.05$ thus the influence of exchange rate on SCM of IPO in Indonesian Stock Exchange positive and not significant. In accordance with previous researchers, the rise of exchange rates in the money market (appreciation

and depreciation) shows the amount of volatility that occurs in a country's currency with another country's currency, [38] Increasing volatility shows an increasingly large exchange rate movement. This gives an overview of overvalued and undervalued currency exchange rates against other countries' currencies. When the currency exchange rate experiences extreme volatility, the economy will experience instability both in terms of macro and micro.

(7) H₇: There are influences of Company Age, Company Size, Stock Capitalization Value, Volatilization, Interest Rate, and Rupiah Exchange Rate together on SCM of IPO in Indonesia Stock Exchange.

H₇ hypothesis is together significant proven which is indicated by giving a contribution of 0.597610 and a significance probability of $0.001646 < 0.05$, thus the company age, company size, stock capitalization value, volatility, interest rate, and rupiah exchange rate (Exchange Rate) together on SCM of IPO in Indonesia Stock Exchange is significant. Appropriate previous researchers that [39], researchers found that the average initial results of a single share IPO was 145%, researchers found that while SCM median B shares only 10%. , The researcher found that the risk was very strong and positively related to SCM of A shares. Researchers found that government shareholdings and high legal entities were also related to SCM. Researchers found that SCM B- shares were positively related to seasonal equity offers (SEO) and ownership the government, researchers found that SCM is a positive function of the ratio of relative price-to-book and relative price variants. Our study provides some insight into pricing new issues on the Chinese stock exchange. [40], Researchers found that the average SCM for IPO of A and B shares was 178% and 11.6%, respectively.

SCM A- share IPO is positively related to the number of days between bidding and recording and the number of stock investors in the province where the IPO comes in. Researchers find that it is negatively related to the number of shares issued. None of these characteristics explained the SCM of B-share's IPO researchers found that in the long run, A-share IPO shares underperformed the portfolio size and book market/ market (B/M) and B- shares outperformed the benchmark portfolio.

(8) H₈: There is an influence of Company Age on Long-term Underperformance of IPO in Indonesia Stock Exchange.

The H₈ hypothesis has no effect, as shown by the coefficient of - 2.544842 and the significance of it is $0.4671 > 0.05$, thus the influence of Company Age on Long-term Underperformance of IPO in

Indonesia Stock Exchange is negative and insignificant. This study contrasts with the previous researchers that, the Company Age has a positive effect on the performance of long-term shares (five years) after the IPO because the longer standing company age shows that the company is more experienced in managing its business, capable of facing competition, and has a market share which is relatively stable. In addition, the longer a company can survive showing the better ability of the company in dealing with business risks, which will then be positively assessed by the market.

(9) H₉: There is an influence of Company Size on Long-term Underperformance of IPO in Indonesia Stock Exchange.

Hypothesis H₉ is not influential proven indicated by coefficient of 2.147210 and probabilities a significance of $0.8435 > 0.05$ thus influence of Company Size on Long-term Underperformance of IPO (IPO) in Indonesia Stock Exchange is positive and not significant.

(10) H₁₀: There is an influence of Stock Capitalization Value on Long-term Underperformance of IPO in Indonesia Stock Exchange.

The H₁₀ hypothesis proved to be influential and significant as indicated by the coefficient of 0.073668 and the significance of the significance of $0.0097 < 0.05$, thus the influence of Stock Capitalization Value on Long-term Underperformance of IPO in Indonesia Stock Exchange is positive and significant. This means that every time there is an increase in capitalization value, it will increase the value for long-term performance by 0.073668 so that there is a big chance that it will increase returns in the long run.

(11) H₁₁: There is an influence of Volatilization on the Long-term Underperformance of IPO in Indonesia Stock Exchange.

The H₁₁ hypothesis is not proven to be indicated by the coefficient of -16.94774 and the significance of it is $0.3358 > 0.05$, thus the influence of Volatilization on the Long-term Underperformance of IPO in Indonesia Stock Exchange is negative and insignificant.

(12) H₁₂: There is an Influence of Interest Rate on Long-term Stock Underperformance of IPO in Indonesia Stock Exchange.

The H₁₂ hypothesis proved to be influential and significant as indicated by the coefficient of - 24976.15 and the significance probability of $0.0000 < 0.05$, thus the Influence of Interest Rate on Long-term Stock Underperformance of IPO in Indonesia Stock Exchange is negative and significant. This means that whenever there is a decrease

in interest rates, it will decrease by -24976.15 on long-term performances.

(13) H₁₃: There is an Influence of Rupiah Exchange Rate on Long-term underperformance of IPO in Indonesia Stock Exchange.

The hypothesis H13 proved to be influential and significant as indicated by the coefficient of -0.436659 and the significance probability of 0.0000 < 0.05, thus the Influence of Rupiah Exchange Rate on Long-term underperformance of IPO in Indonesia Stock Exchange was negative and significant. Meaning it that whenever there is depreciation of the dollar exchange rate against the weakening of the rupiah will lower its long-term performance-0.436659.

(14) H₁₄: There is an influence of SCM on long-term underperformance IPO in Indonesia Stock Exchange.

The H14 hypothesis is not proven as indicated by the coefficient of -0.039636 and the significance of it is 0.4596 > 0.05, thus influence of SCM on long-term underperformance IPO in Indonesia Stock Exchange is positive and insignificant.

(15) H₁₅: There are influences of Company Age, Company Size, Stock Capitalization Value, Volatilization, Interest Rate, Rupiah Exchange Rate (Dollar Exchange Rate), and SCM together on Long-term Underperformance of IPO in Indonesia Stock Exchange.

The H15 hypothesis proved to be influential and significant and contributed 86% as indicated by the probability of significance of 0.0000 < 0.05, thus the influences of Company Age, Company Size, Stock Capitalization Value, Volatilization, Interest Rate, Rupiah Exchange Rate (Dollar Exchange Rate), and SCM together on Long-term Underperformance of IPO in Indonesia Stock Exchange are positive and significant. This study conducted on Indonesia Stock Exchange supported by previous research, namely.

5. Discussion

Based on the results of the analysis and hypothesis testing using Panel data on company data that carried out the IPO in 2016 for the five-year analysis (2016-2020) and hypothesis testing that has been done:

- 1) Structure-1 regression is to prove the influence of Company age (Age), company size (SIZE), Stock Capitalization Value (KAPT), Volatilization (VOLA), Interest Rate (RATE), and Rupiah Exchange Rate (KURS), on SCM Stock Price (HSU) of IPO (IPO) in Indonesia Stock Exchange.
- 2) Structure-2 regression is to prove the influence of Company Age (Age), Company Size (SIZE), Stock Capitalization Value (KAPT), Volatilization (VOLA), Interest Rate (RATE), Rupiah Exchange Rate (KURS), and SCM Stock Price (HSU) on Long-term Underperformance of IPO (IPO) in Indonesia Stock Exchange.

Table 2. Structure-1 Hypothesis Test Results and Structure - 2

Hypotesis	Variable	Structure-1			Hypothesis	Structure-2		
		Influence on HSU				Effects on Long Term Underperformance		
		Coefficient	Prob	2016		Coefficient	Prob	2016
H1	AGE	-146,5782	0.0024	p < 0.05; S	H8	-2,544,842	0.4671	p > 0.05; TS
H2	SIZE	292,0984	0.0743	p > 0.05; TS	H9	2,147,210	0.8435	p > 0.05; TS
H3	KAPT	0.037181	0.1817	p < 0.05; TS	H10	0.073668	0.0097	p < 0.05; S
H4	VOLA	-7,692119	0.7130	p < 0.05; TS	H11	-1,694,774	0.3358	p > 0.05; TS
H5	RATE	-5628,660	0.1176	p > 0.05; TS	H12	-24976.15	0.0000	p < 0.05; S
H6	EXCHANGE RATE	-0.055703	0.2658	p > 0.05; TS	H13	-0.436659	0.0000	p < 0.05; S
H7	Simultaneous		0.001646	p < 0.05; S	H14	-0.039636	0.4596	p > 0.05; TS
		F = 3.366344			H15	Simultaneous	0.0000	p < 0.05; S
						F = 3684300		
R-Square	0.597610				R_Square		0.859954	

Source: Processing Results of E-Views 9

6. Conclusion

The phenomenon of SCM is a practice that almost always occurs in every company that conducts an IPO on the Indonesia stock exchange (BEI). Based on the company that carried out the IPO on the IDX during the 2016 period with a 5-year analysis period (2016-2020). Based on empirical findings, the conclusions of this study are as follows:

- 1) Company's age has a negative and significant effect on SCM which conducted on IPO in Indonesia Stock Exchange in 2016. The empirical findings in the research hypothesis which state that the company age influences on SCM of IPO in Indonesia Stock Exchange 2016.
- 2) Company size does not have a significant effect on companies SCM which conducted on IPO in Indonesia Stock Exchange in 2016. The empirical findings in the research hypothesis suggest that Company size influences on companies SCM of IPO in Indonesia Stock Exchange in 2016.
- 3) Capitalization value has no significant effect on SCM in Indonesia Stock Exchange in 2016. While the empirical findings in the research hypothesis which states there is an effect of Capitalization value on SCM of IPO in Indonesia Stock Exchange from 2016-2020 .
- 4) Volatility has no significant effect on SCM in Indonesia Stock Exchange in 2016. The empirical findings in the research hypothesis have an effect of volatilization on SCM of IPO in the Indonesia Stock Exchange in 2016.
- 5) Interest rate has no significant effect in Indonesia Stock Exchange in 2016. The empirical findings in the research hypothesis have the effect of the interest rate on SCM of IPO in Indonesia Stock Exchange in 2016.
- 6) Exchange Rates of Rupiah (Kurs \$) has no significant effect on Indonesia Stock Exchange in 2016. Empirical findings in the hypothesis there is the effect of the exchange rate on SCM deals of IPO in 2016 in Indonesian Stock Exchange 2016.
- 7) The effect of Company Age, Company Size, Stock Capitalization Value, Volatility, Interest Rate, and Rupiah Exchange Rate together influence and have significant effect on SCM and R-squared is 0.597610% on SCM and the most sensitive and least sensitive company is PT. Indonesia Transportasi Tbk, And the most sensitive and most sensitive company is the Smart Fren Telecom Tbk . The empirical findings in accordance with the hypothesis included the influence of Company Age, Company Size, Stock Capitalization Value, Volatilization, Interest Rate, and Rupiah Exchange Rate together on SCM of IPO in Indonesia Stock Exchange in 2016.
- 8) Company age has no significant effect on Long-term underperformance in Indonesian Stock Exchange, according to the findings of empirical research hypothesis there is the influence of Company age on Long-term Underperformance in Indonesia Stock Exchange 2016.
- 9) Company size has no significant effect on Long-term Underperformance in Indonesia Stock Exchange in accordance with the empirical findings of the research hypothesis that there is an influence of Company Size on Long-term underperformance in Indonesia Stock Exchange 2016.
- 10) Capitalization has Positive and significant effects on long-term underperformance in Indonesia Stock Exchange, the empirical findings of the research hypothesis have the effect of the Share Capitalization Value on Long-term underperformance in Indonesia Stock Exchange 2016.
- 11) Volatility has no significant effect on Long-term underperformance in Indonesia Stock Exchange in accordance with the empirical findings of the research hypothesis there is a volatilization effect on Long-Term Performance in Indonesia Stock Exchange 2016.
- 12) Interest rate has a negative significant effect on Long-term underperformance in Indonesia Stock Exchange, in accordance with the empirical findings of the research hypothesis that there is an influence of Interest Rate on Long-term underperformance in Indonesia Stock Exchange 2016.
- 13) Rupiah exchange rate (\$ exchange rate) has a negative and significant effect on Long Term underperformance in Indonesia Stock Exchange, in accordance with the empirical findings of the research hypothesis that there is an effect of Rupiah Exchange Rate on Long-term underperformance in Indonesia Stock Exchange 2016.
- 14) SCM has no significant negative effect on Long Term underperformance in Indonesia Stock Exchange, in accordance with the empirical findings of the research hypothesis that there is an influence of SCM on Long-term underperformance in Indonesia Stock Exchange 2016.
- 15) Collectively has a significant effect on Long Term underperformance in Indonesia Stock Exchange in accordance with the empirical findings of the research hypothesis there are Effects of Company Age, Company Size, Stock Capitalization Value, Volatilization, Interest Rate, Rupiah Exchange Rate, and SCM together on Long-term underperformance in Indonesia Stock Exchange 2016. R-Squared contributed 0.859954 to Long Term

Underperformance and the company with the most sensitivity was Bakrie Telecom Tbk, while the company with the least sensitivity was Bank Bumi Arta Tbk.

6.1 Managerial Implications

6.1.1 For Companies (Issuers)

- 1) The age of the company has a positive and significant effect on SCM of IPO in Indonesia Stock Exchange.
- 2) Cold Market conditions can affect the level of SCM on IPOs in Indonesia Stock Exchange.
- 3) For companies that do earnings management, it will be seen in long-term performance that will produce negative returns.
- 4) The capitalization value that occurs in the primary market is likely to produce a poor performance (negative return) and will affect the joint stock price index of IPO shares in Indonesia Stock Exchange.
- 5) Interest rates that occur in Indonesia can affect the long-term performance of the IPO Shares in 2016 of the initial shares in Indonesia Stock Exchange.
- 6) The dollar exchange rate in the event of a weakening depreciation against the rupiah will directly affect the joint stock price index which results from the poor performance of IPO shares on the Indonesia Stock Exchange.

6.1.2 For investors

- 1) Hot Market conditions are more profitable to obtain IPO shares because it will produce long-term positive return performance.
- 2) Investors should invest in shares of initial stock not focused on fundamental analysis (financial statements) but must look for detailed company information either through a personnel or corporate approach to find information that is not contained in financial statement analysis every IPO on the primary market.

6.2 Suggestion

Based on the results of the research on the success of the IPO is much greater by the underwriter, it is suggested that the underwriter in determining the initial stock price can pay more attention to information that is non accounting so that all parties interested in the IPO process can have sufficient information so that it is not based solely on fundamental data so the authors suggest that not

all shares are cheap or SCM is good for the long term.

For Independent parties or Public Accounting Firms that will issue opinions for a company for the stages of the IPO process, it should be able to present transparently in accordance with the Code of Conduct of the Public Accountants that has been determined.

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