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# FIRM'S LIFE CYCLE AND OHLSON VALUATION MODEL: EVIDENCE FROM IRAN

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## ABSTRACT

*Ohlson prediction and valuation models Ohlson (1995) are based on firm book value, accounting profit and the assumption of "randomized, balanced and stabilized abnormal earnings". On the other hand, the significance of risk and performance indicators during the firm's life cycle is different according to the life cycle theory. This literature represents the linkage of these indicators with the firm's value in different life cycle stages. In this study which is aimed to review the ability to improve the Ohlson valuation model considering the firm's life cycle variable, a sample of 110 firms listed in Tehran Stock Exchange between 2003 and 2013 was selected. Using Anthony and Ramesh (1992) variables and Park and Chen (2006) methodology, the life cycle was divided into three stages and then, considering the firm's place in the life cycle, prediction models of abnormal earnings and Ohlson firm's valuation Ohlson (1995) were adjusted and afterward the adjusted models were compared with the initial model in two short-term and long-term estimation periods of 5 and 10 years, respectively. The results show that during both estimation periods, the adjusted model has a better performance in predicting abnormal earnings and firm's valuation compared to the initial model. During the 10-year estimation period, the two models' estimated values were significantly less than actual values. The probable reason for this difference is the sharp rise in the value of stocks during the final years of the period especially between 2012 and 2013.*



**Keywords:** Firm valuation, Firm life cycle, Abnormal earning, Ohlson valuation model, Growth, Decline, Maturity.

**JEL Classification:** M41, G11, G12.

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**Contribution/ Originality**

The paper's primary contribution is providing a superior model for firm valuation by considering firm's life cycle. While previous studies have shown the relationship between the accounting variables with firm value at different stages of the life cycle, none of them addressed adjustment the valuation model using this variable.

## 1. INTRODUCTION

Capital market participants are always looking for value stocks and a valid valuation method which will lead them into stock inherent value. Since then, several studies have been conducted to predict stock prices, each of which has deemed effective one or more variables than other variables on the stock price changes. So they have tried to control other variables in order to study the effect of the variables considered on the price changes. In general, studies conducted show an increase in the role of book value in stock valuation and the relationship of this variable with firms' market value Penman and Sougiannis (1998). As in recent years, Ohlson (1995) and Feltham and Ohlson (1995) models have become landmark works in accounting data. Ohlson (1995) suggests that the firm's value is affected by three factors of the firm book value residual earnings and other information so that we can fix a value close to the inherent value in order to determine fair value in the capital market. (Frankel and Lee, 1998; Dechow *et al.*, 1999; Callen and Morel, 2001) and Khodadadi and Emami (2010) are among the researchers who have examined the role of accounting data in determining the firm's value using the Ohlson model Ohlson (1995). The results of some of these investigations (such as Myers (1999)), Dechow *et al.* (1998), and Frankel and Lee (1998), indicate that the estimated values of this model are significantly less than the actual values.(Dechow *et al.*, 1999; Myers, 1999; Francis *et al.*, 2000; Lo and Lys, 2000; Callen and Morel, 2001; Ota, 2002) and Giner and Iniguez (2006b) are among the researchers to have tried to correct the Ohlson model Ohlson (1995) to raise its accuracy in predicting abnormal earnings and firm value.

The life cycle theory of a business entity assumes that the latter presents different characteristics in different stages of the life cycle. Therefore, selected strategies and performance measures can be different in different stages Kallunki and Silvola (2008). The value of business entities is influenced by internal factors, such as the choice of strategy, financial resources and ability to manage, and external factors, such as competitive environment and macroeconomic factors. Firm's life cycles are different stages created by the change of these factors; most of these changes are due to strategic activities selected by the firm Dickinson (2011). In recent years, studies have been conducted on the difference of risk and performance indicators during the firm's life cycle (including (Anthony and Ramesh, 1992; Black, 1998; Kallunki and Silvola, 2008; Dickinson, 2011). The main message of these studies is that the value assigned to a criterion by capital market participants depends on the relative importance of this criterion in a certain stage of life cycle. This study tries to test and examine the capacity of the firm's life cycle in order to present a better valuation pattern.

While previous literatures have directly studied the effect of the life cycle on value relevant to accounting earnings, this research is important because it investigates how the life cycle affects the relationship between accounting variables and the firm value.

The second section of this study deals with literature review and theoretical framework. In the third section, the research design is indicated and the fourth section states the research findings and, finally, the conclusions are discussed.

## 2. STUDY OF LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Ohlson (1995) showed that the firm's inherent value is equal to the book value of shareholders plus the current value of subsequent abnormal earnings. The latter is equal to accounting earning and expected return on equity (discount rate multiplied by the book value). The inherent value is also equal to the future dividend value, regardless of interest payment policies and/or quality of accounting items. The advantage of Ohlson perspective which has stimulated a growing body of researches is that it recognizes the potential effect of retained earnings on future earnings. For instance, if a firm retains a great part of its earnings, naturally one can expect that due to the advantage of excess earnings obtained by retained earnings, it will obtain higher future earnings. Other advantages of the Ohlson perspective are the shift from excessive concentration on earning to profitability. In his view, a difference between the book value and the market value is possible only when we expect that the firm systematically earns from its assets, which is different from expected rate of return of the market. Dechow *et al.* (1999) assert that the real achievement of Ohlson (1995) and Feltham and Ohlson (1995) is that the linear models presented by them create a link between current data and the firm's inherent value. The main contribution of this model is to provide as old theoretical frame work for the valuation of stock based on the fundamental accounting variables (earnings and book value). In addition, these models allow any other information to intervene in predicting the firm's value. Howe ever the results of previous studies on these models show that values calculated by these models are less than the market value.

The theory of the business life cycle uses a generalization of the developed concept of product life cycle in marketing and microeconomics. Products (goods or services) move in four stages: start up, growth, mature and stagnant. Similarly, businesses can also be described in stages of the life cycle. Most researchers claim that businesses have different characteristics at different stages of the life cycle which affect the relevant value or profitability of accounting performance measures. The life cycle approach provides an analysis of the framework of economic content.

Life cycle models of the firm have entered financial strategy literature since 1960s. The main message of the studies on the relevance of performance measures is that the value assigned to a performance measure by capital market participants depends on the relative importance of this measure in a certain stage of the life cycle.

Anthony and Ramesh (1992) investigated the fact that how the life cycle stages, as strategic characteristics, may affect the relevance of accounting data. They stated that sales growth and

capital expenditures in the early stages of the life cycle are more important and the market gives them more value.

Gaver and Gaver (1993) underlined that variation in investment opportunities will lead to different financing policies, dividend and competition. They found that growing firms use smaller leverage and pay few dividends. They also use more share-based compensation bonus than the firms which are in other life cycle stages.

Black (1998) suggests the uniform reduction of the relevance of earnings and cash flows in the stages of life cycle. Investigating the relationship of earnings and cash flows with the firm's value in different stages of their life cycle, he showed that, in start up and decline stages, cash flows were more relevant than the earnings; while the reverse is true in the mature stage.

By examining the relationship of sale growth and profitability with earnings and cash flows, Martinez (2003) realized the non-linear effect of the life cycle on the relevance of earnings and cash flows.

Jenkins *et al.* (2004) concluded that when earnings are decomposed into their components, the effect of life cycle on the relevance of earnings will be clearer and stronger.

Aharony *et al.* (2006) examined the explanatory power of measures based on cash flows and those based on accruals in defining the firm's value at different stages of the life cycle. In the growth stage, the explanatory power of measures based on cash flows was higher but in the mature stage, the explanatory power of measures based on accruals was higher.

Xu (2007), using regression analysis, investigated the relevance of risk factors to the firm's life cycle. His research led to two important findings. First, risk factors in different stages of life cycle are priced differently. Also, incremental explanatory power of risk factors varies with the change of life cycle stages.

While the Ohlson (1995) prediction and valuation model relies on the firm's book value, accounting earnings and the assumption that "abnormal earnings are randomized, balanced and stabilized", however, according to the theory of life cycle, risk and performance indicators during the firm's life cycle are of various importance (for example, see (Anthony and Ramesh, 1992; Martinez, 2003; Xu, 2007)), and their relationship with the firm's value varies during different stages of the life cycle. The question which comes to mind is "whether considering the variable of firm's life cycle can improve Ohlson valuation model." Thus the main research hypotheses are formulated as follows:

1. Considering the firm's life cycle enhances the ability to predict abnormal earnings of the Ohlson model Ohlson (1995);
2. Considering the firm's life cycle enhances the ability to evaluate the Ohlson model Ohlson (1995).

## 3. RESEARCH METHODOLOGY

To test hypotheses in this study, we record the firm's place in the life cycle stages as a dummy variable in the model. Since, according to previous literature, risk and performance indicators are of

various importance during the firm's life cycle and that their relationship with the firm's value during different stages of life cycle is variable (for example, see (Anthony and Ramesh, 1992; Martinez, 2003; Xu, 2007)), the characteristics of the firm in maturity, are different with growth and decline stages, so $D_{j,t}$ was defined as a dummy variable with zero and one values; in case the year-firm belongs to growth and decline stages, its value will be zero, and if it belongs to the maturity stage, a value of one will be assigned to. Similar to Black (1998), Jenkins *et al.* (2004) and Kallunki and Silvola (2008) used Anthony and Ramesh (1992) variables and Park and Chen (2006) methodology to classify firms' life cycle in different stages of life cycle in this study. To distinguish firms in life cycle stages, they used the Anthony and Ramesh (1992) variables:

$SG_{it} = [(SALE_{it} / SALE_{it}\text{-}1) -1] \times 100$

$DPR_{it} = (DPS_{it} / EPS_{it}) \times 100$

$(CEXPit/ VALUE_{it}) \times 100 = CE_{it}$

$AGE_t = i\text{-} ES_t$

SG= percent sales growth

DPR= Annual dividend payout divided by net income

CE = Capital expenditure divided by total value of the firm

AGE= Age of the firm are computed as the difference between the current year and the earliest year of incorporation for each firm-year. The four life cycle stage descriptors are calculated for each firm-year and the four classification variable observations for each firm-year are assigned to each industry quintile of the same variable and they are given a score as showed in figure 1.

**Table-1.** Life-Cycle Descriptors

| Industry Quintile | Life-Cycle Descriptors | | | |
|---|---|---|---|---|
| | AGE | SG | CE | DP |
| 80%-100% | 1 | 5 | 5 | 3 |
| 60%-80% | 2 | 4 | 4 | 3 |
| 40%-60% | 3 | 3 | 3 | 3 |
| 20%-40% | 4 | 2 | 2 | 4 (2) |
| 0%-20% | 5 | 1 | 1 | 5 (1) |

**Note:** If the sum of scores for AGE, SG, and CE is low (i.e., smaller than 7.5), and DP is at the lowest (second lowest) quintile, then one (two) is assigned as the DP score for decline stage firm-years.

The composite score ranges from four to 20. Each firm-year is classified into three life-cycle stages using the following procedure:

1. "GROWTH": If it's composite score is between 16 and 20.
2. "MATURE": If it's composite score is between 9 and 15.
3. "DECLINE": If it's composite score is between 4 and 8.

To test the first hypothesis of the study, abnormal earnings were adjusted once by the Ohlson model and once by other models taking into consideration the prediction life cycle; then, both the initial and adjusted models were compared with each other by using the adjusted r squared, Akaike info criterion and Schwarz criterion and sum of squared residuals in order to determine the best model. The abnormal earnings valuated in the traditional model were estimated as follows:

$$X^{a}_{t+1} = \omega_{11} X^{a}_{t} + \varepsilon_{j,t+1}$$

Where:

$X^{a}_{j,t}$ : Abnormal earnings of year t

$\omega_{11}$ : Persistence of abnormal earnings ($0 < \omega_{11} < 1$)

Ohlson assumes that sources of abnormal earnings are monopoly rents. Although the latter may be continued for a period of time, market competition in the long run will make them equivalent to the cost of capital. Thus, it is expected that the $w_{11}$ coefficient is between zero and one. Considering the firm's life cycle stages and being inspired by the adjusted model of Giner and Iniguez (2006b), the adjustment of the Ohlson model is as follows:

$$X^{a}_{j,t+1} = \omega_{11} X^{a}_{j,t} + \omega^{+}_{11} D_{j,t} X^{a}_{j,t} + \varepsilon_{j,t+1}$$

$X^{a}_{j,t}$ : Abnormal earnings of year t

$\omega_{11}$: Persistence of abnormal earnings of firms on growth and stagnant stages

$\omega_{11} + \omega_{12}$: Persistence of abnormal earnings of firms on mature

$D_{j,t}$ : Dummy variable for firm j at time t ( $D_{j,t}$ =*1* if firm is in mature stage and 0 otherwise)

To test the second hypothesis, valuating of the firm is done once by the Ohlson valuation model (Ohlson, 1995) and the second time by the adjusted model taking into account the life cycle. The valuation in the traditional model was estimated as follows:

$$V_t = bv_t + \alpha \; x^{a}_{j,t}$$

Where:

$bv_t$ : Book Value of firm of year t

$X^{a}_{j,t}$ : Abnormal earnings of year t

$$\alpha = \frac{\omega_{11}}{1 + r - \omega_{11}}$$

For valuation of firm value (V+) by adjusted model we use same traditional model. The difference is that in the adjusted model, $\alpha$ was calculated by the following method:

$$\alpha = \frac{(\omega_{11} + \omega^{+}_{11} D_{j,t})}{1 + r - (\omega_{11} + \omega^{+}_{11} D_{j,t})}$$

In both traditional and adjusted models, equality of the average of estimated values was verified by each of the above models (V, $V^{+}$) with market actual prices (P) using the T-test; the above equality was also investigated by Wilcoxon signed-rank test, and then the mean absolute errors of prediction in both the initial and adjusted models was compared to establish the best valuation model. There were great fluctuations over several years in Tehran Stock Exchange index. Two short and long-term periods of 5 and10years, respectively, can be solution to control the effect of these fluctuations. In addition, due to market volatility over the last few years of the estimation period and especially 2012 and 2013, a more rational approach will be using data from the early years of the short-term period. Therefore in this study, the test of hypotheses was done by using pooled data of the adjusted population during the two estimation periods of 5 years (2003-2008) and 10 years (2003-2013). The statistical population of this research was selected among the

firms listed in Tehran Stock Exchange. The population was adjusted with regard to the following conditions and all firms who had these conditions were studied.

**Table-2.** Adjusting population procedure

| Description | Qty |
|---|---|
| Active Firms whose accounting data during the time interval of research is accessible | 207 |
| Deducted: firms whose monthly price data in this time interval have not been accessible | 23 |
| Deducted: firms whose fiscal year not ending to 20th March | 56 |
| Deducted: Insurance and Investment firms | 18 |
| Total sum of qualified firms selected | 110 |

Accounting data required for this study were collected from financial statements, data on prices, and market index using Rahavard Novin 3 software, and the data related to risk free rate was collected from the archive of the Central Bank.

## 4. FINDINGS

Descriptive statistics for variables are shown in Table3 and the year-firms' classification statistics in different stages of life cycle are as shown in Table 5.

**Table-3.** Descriptive Statistics

| Variable | Number | Minimum | Maximum | Mean | Standard Deviation | Skewness | Kurtosis |
|---|---|---|---|---|---|---|---|
| AGE | 1210 | 5 | 63 | 35.836364 | 11.99778 | -0.235989 | -0.722742 |
| CE | 1210 | -372.73 | 682.56 | 5.6870909 | 45.218951 | 5.2165481 | 76.406115 |
| SG | 1210 | -78.71 | 768.2 | 20.656421 | 39.006623 | 6.6893031 | 114.53571 |
| DPR | 1210 | 0 | 839.55 | 59.893636 | 49.948218 | 5.2151633 | 72.769845 |
| NI | 1210 | -7204976 | 15760512 | 180587.5 | 959588.42 | 7.4641758 | 103.49316 |
| rj | 1210 | -27.45 | 13.39 | 0.247843 | 1.7065356 | -6.501785 | 103.57279 |
| BV | 1210 | -7409844 | 21055641 | 520580.85 | 1917166.2 | 7.0564799 | 59.349523 |
| V | 1210 | 8601.6 | 100692000 | 1237140.2 | 4846418.9 | 12.906803 | 221.48058 |
| rm | 1210 | -0.22 | 1.25 | 0.3662893 | 0.4896345 | 0.5169077 | -1.113019 |
| rf | 1210 | 0.16 | 0.2 | 0.1754545 | 0.016167 | 0.6299047 | -1.240431 |

Levin, Lin & Chu Unit Root Test was utilized to examine the reliability of the research variables. As illustrated in Table 4, the reliability of the variables has been approved data significance level of 99 percent.

**Table-4.** Levin, Lin & Chu Unit Root Test

| Variables | Statistic | sig |
|---|---|---|
| Book value | -3.95924 | 0.000 |
| Abnormal | -9.99080 | 0.000 |

**Table-5.** Firms' Classification Statistics

| Year | Number of Firms On stages | | | Total |
|---|---|---|---|---|
| | Stagnant | Mature | Growth | |
| 2003 | 5 | 90 | 15 | 110 |
| 2004 | 2 | 59 | 31 | 110 |
| 2005 | 7 | 98 | 5 | 110 |
| 2006 | 5 | 97 | 8 | 110 |
| 2007 | 7 | 99 | 4 | 110 |
| 2008 | 10 | 96 | 4 | 110 |
| 2009 | 17 | 90 | 3 | 110 |
| 2010 | 11 | 91 | 8 | 110 |
| 2011 | 17 | 81 | 12 | 110 |
| 2012 | 9 | 93 | 8 | 110 |
| 2013 | 8 | 88 | 14 | 110 |
| Total | 98 | 1018 | 94 | 1210 |

### 4.1. The First Hypothesis Test Results

The results of fitting the two initial and adjusted regression models to test the first hypothesis of the study during both estimation periods of 5 and 10 years are as described in Table 6 and Table 7. The research results indicate the confirmation of initial models' efficiency in the prediction of abnormal earnings. This result conforms to the most researches, i.e. McCrae and Nitsson (2001), Callen and Morel (2001) and Khodadadi and Emami (2010). Regression test results show the superiority of the adjusted model to the initial one in terms of $AR^2$ index during both estimation periods. The significance of $X^a d_t$ variable of the previous period during both estimation periods at a level of 1% indicates the significance of the adjustment done.

To make a better comparison of both the initial and adjusted models for predicting abnormal earnings, Akaike Information Criterion (AIC) and Schwarz Criterion (SC) and sum of squared residuals (SSR) were used. The results of this comparison are shown in Table 8. As shown in the table, Akaike and Schwarz criteria to estimate the adjusted model are smaller in both periods. In terms of criterion, the sum of squared residuals during both estimation periods of the initial model is smaller than that of the adjusted model. In total, evidence suggests the superiority of the adjusted model in comparison with the initial model in predicting the abnormal earnings. So the first research hypothesis is confirmed.

**Table-6.** The results of first hypothesis in traditional model

| The estimation period | $w_{11}$ | Prob | $AR^2$ | DWS |
|---|---|---|---|---|
| 5 years | 0.385689 | 0.000 | 0.6337 | 1.621 |
| 10 years | 0.438625 | 0.000 | 0.587051 | 1.713 |

**Table-7.** The results of first hypothesis in adjusted model

| The estimation period | $w_{11}$ | Prob | $w_{11}+w_{11}^{+}$ | Prob | $AR^2$ | DWS |
|---|---|---|---|---|---|---|
| 5 years | 0.210329 | 0.000 | 0.380010 | 0.000 | 0.708578 | 1.674 |
| 10 years | 0.262742 | 0.000 | 0.438640 | 0.000 | 0.592001 | 1.704 |

**Table-8.** Comparison of Research Models in Respect of First hypothesis

| The estimation period | $AR^2$ | | Sum of Squared Residuals | | Akaike criterion | | Schwarz criterion | |
|---|---|---|---|---|---|---|---|---|
| | traditional model | adjusted model | traditional model | adjusted model | traditional model | adjusted model | traditional model | adjusted model |
| 5 years | 0.623 | 0.708* | 1.14E+15* | 1.15E+15 | 24.650 | 24.594* | 24.658 | 24.609* |
| 10 years | 0.587 | 0.592* | 2.26E+15 | 2.22E+15* | 25.795 | 25.778* | 25.799 | 25.787* |

*-indicating superior model

### 4.2. The Second Hypothesis Test Results

According to the results obtained during the 5-yearestimation period, values estimated by the initial model are a good approximation of the actual values. This result is a support to the claim of Ohlson (1995), McCrae and Nitsson (2001),Callen and Morel (2001). In this estimation period, values estimated by adjusted model are a good approximation of the actual values too. The results listed in Table9insure that adjustment of valuation model by considering the firm's life cycle will improve valuation power of the model during the 5-year estimation period. In terms of testing the equality of means, the significance level in this period was increased from 0.717 in the initial model to 0.773 in the adjusted model, and this indicates the valuation power improved in both models. The equality of means of estimated and actual values at a confidence level of 99% is so rejected. Improvement of valuation power in the adjusted model is also observable in terms of testing the equality of means; so that the significance level has increased from 0.221 in the initial model to 0.457 in the adjusted model.

As can be seen in Table9, the estimated values in the 10-year estimation period in both the initial and adjusted models significantly differ from the actual values. In view of the sharp increase of stock value of the firms listed on the Tehran Stock Exchange during the year 2012, especially in 2013 (with regard to the increase of the general index from 25,400 at the beginning of 2012 to 38,040 at the beginning of 2013, and to 78,968 at the end of this year), the reason of difference between valuation models and actual values may be the price bubbles made during these years in the Tehran Stock Exchange but Confirm this claim to need to a specific research in this area.

**Table-9.**The Results of means and medians Equality Test

| The estimation period | T test(H0: $\mu_V = \mu_P$) | | | | Wilcoxon signed rank test(H0:medv=medp) | | | |
|---|---|---|---|---|---|---|---|---|
| | adjusted model | | traditional model | | adjusted model | | traditional model | |
| | T statistic | Sig | T statistic | Sig | Z statistic | Sig | Z statistic | Sig |
| 5 years | 0.289 | 0.773 | -0.363 | 0.717 | 0.000 | 0.475 | -1.234 | 0.221 |
| 10 years | 2.268 | 0.009 | -2.705 | 0.008 | -8.400 | 0.000 | -8.632 | 0.000 |

**Table-10.**Comparative survey on the Valuation Power of Models

| The estimation period | Models | Average of Absolute valuation errors | Total number of observations | Observations with V<P | Observations with V>P |
|---|---|---|---|---|---|
| 5 years | traditional model | 275500 | 110 | 57% | 43% |
| | adjusted model | 151839 | 110 | 51% | 49% |
| 10 years | traditional model | 1880181 | 110 | 92% | 8% |
| | adjusted model | 1861990 | 110 | 87% | 13% |

The comparison of valuation power of both models was performed by comparing the mean absolute errors of the valuation errors. According to Table10, the values estimated by the adjusted model in both estimation periods have fewer errors than the initial model. . These results confirm the research second hypothesis. Similar to most domestic and foreign research (e.g. (Dechow *et al.*, 1999; Myers, 1999; Khodadadi and Emami, 2010)), most of the estimated values in both the initial and adjusted models are less than the actual values. While the estimated values of the initial model are less than market actual values in the initial model during the 5-year period at 57% of observations and during the 10-year period at 92% of observations, this proportion has decreased in the adjusted model to 51% and 87%, respectively.

## 5. CONCLUSION

Ohlson (1995) suggests that the firm value is influenced by three factors of the firm book value, residual earnings and other information so that we can determine the fair value in capital market by specifying the inherent value. Since Ohlson prediction and valuation model (Ohlson, 1995) relies on the firm book value, accounting earning and the assumption that "abnormal earnings are randomized and stabilized", and also according to the theory of life cycle which asserts that risk and performance indicators are of various importance during the firm's life cycle and that their relationship with the firm's value varies during different stages of life cycle, this paper was thus aimed at reviewing the ability to improve Ohlson valuation model with regard to the firm's life cycle variable. To this end, the pooled data of 110 firms listed on the Tehran Stock Exchange from 2003 to 2013 were used. Additionally, using Anthony and Ramesh (1992) variables and Park and Chen (2006) methodology, all year-firms were divided into three life cycles, and then the adjusted model for predicting abnormal earnings was compared with Ohlson initial model (Ohlson, 1995) for the firm's valuation during the estimation periods of 5 and 10 years. The results indicate that during both estimation periods, the Ohlson adjusted model, through considering life cycle, had a better performance than the initial model in predicting the abnormal earnings and the firm's valuation. Results are supports to Life Cycle Theory. The life cycle theory of a business entity assumes that the latter presents different characteristics in different stages of the life cycle. The value of business entities is influenced by internal factors, such as the choice of strategy, financial resources and ability to manage, and external factors, such as competitive environment and macroeconomic factors. The value assigned to a criterion by capital market participants depends on the relative importance of this criterion in a certain stage of life cycle. Stability of sale, risk and

performance indicators in mature stage is different with growth and decline stages. Thus prediction of abnormal earnings, as same as valuation, is different in mature firms with others. The research results will be applicable for Investors and Firms' Managers. It is expected that the research results can indicate a model describing the investors' stock theoretic value. The results help those making better decisions. The firms' stock price in financial markets is focused by most managers. Since this is one of their assessment factors in shareholder's viewpoint, achieving a model segregating the stock unsubstantial price from the prices having theoretical backup will provide a better criterion for the assessment made by shareholders and managers defending of their operation.

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