Sustainable Growth: Grow and Broke Empirical Study on Manufacturing Sector Companies Listed on the Indonesia Stock Exchange

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Abstract

Sales growth is one of the indicators of firm’s performance. However, high sales growth does not guarantee high stakeholder value. This is shown by the relationship of sales growth (AGR) and sustainable growth (SGR), as well as balance growth (BGR). This study is conducted using a 466 sample of manufacturing companies listed on the Indonesia Stock Exchange from 2012 to 2016. Paired sample test and compared mean one-way ANOVA are used to see the difference in Net Profit Margin, Assets Turnover, Dividend Payout Ratio, Price Earnings Ratio, and Debt to Equity Ratio of AGR, BGR, and SGR sample group are classified based on low, medium, and high rank. The results show that (1) high sales growth cannot be used to explain high Net Profit Margin and Assets Turnover; (2) companies with high BGR also have high DPR and PER. However, it is believed that high BGR should lead to lower DER. Nonetheless, this study found that companies with high SGR have higher debt in their financing, indicating ‘Growth and Broke’ has occurred.

Keywords: actual growth, balance growth, sustainable growth, ‘Grow and Broke’

1. Introduction

Growth is a concept that is widely used in various philosophies of science and has various meanings as the process of improvement. In economics, the term growth is associated with the process of development, expansion and acceleration (Akalpler, 2018; Chen, 2018), while, in business terms, growth is interpreted as an increase in economic or business capacity in terms of producing/selling products or services (Pradhan, 2017; Ribeiro, 2017; Saripalli, 2017). Therefore, growth is used in business enterprises as an indicator of success, such as the rate of economic growth or revenue growth rate. Furthermore, many literatures develop growth taxonomy for various interests in different time frames, such as short-run and long-run growth, actual growth, slow and rapid
growth, internal growth and external growth, or sustainable or unsustainable growth (Woo, 2017). Some of these indicators are used for management decision-making, especially those related to managerial interests in financial planning, debt holders and shareholders and governments. Therefore, managing growth by distinguishing that actual growth is different from sustainable growth is important for companies to place balanced growth as a detection of the company’s position in terms of cash balance.

There is no universal definition of corporate sustainability (Roca and Searcy, 2011) Grayson, 2011) defined corporate sustainability as a company’s ability to reach the needs of stakeholders, either directly or indirectly, without disrupting its ability to satisfy its needs in the future (Dyllick and Hockerts, 2002). Growth rates can be classified by some researchers into rapid growth and slow growth. Some researchers show the size of the company’s growth in different ways, for example, assets growth that reflects the expansion of companies that have some meaning (Constantinou, 2017). Some researchers use several indicators to measure growth performance of companies, such as sales growth or firm growth (Kang, Lobo and Wolfe 2015; Nason and Wiklund, 2015; Abuhommous, 2017; Di Cintio, 2017; Debnath, 2017; Mathew, 2017; Oliveira, 2017; Topcu and Čoban, 2017).

Higgins (1977) introduces the term ‘sustainable growth rate’ as a consistency of the company’s growth targets with financial policies (e.g., capital structure targets and dividend policies to be maintained) and will not sell new equity, stating “if the sales growth is greater than the expected target then the company will make a series of policies, otherwise if sales growth is smaller than the expected, the company will increase dividend payments, reduce debt or increase liquid assets.” This suggests that growth indicators are increasingly specific to contributing to the development of a financial management literacy that can be used in corporate decision-making. An important decision for a company is a decision that affects shareholder value.

2. Literature Review

2.1. Actual growth, sustainable growth and balance growth

Higgins has published a series of papers about how to manage the growth of a company (Higgins 1977; 1981; 2008). The term ‘Growth and Broke’ is very interesting, a philosophy that has a very deep meaning: growing becomes messy, indicating that growth must be managed. In financial perspectives, it means that sales growth does not always result in sustainability, as Higgins has clearly explained. He later introduced
the term growth of the company by differentiating actual growth, sustainable growth and balance growth.

### 2.1.1. Actual growth

Company growth is closely related to planning or forecasting in the future. From a financial management perspective, the central issue in financial planning activities comes from sales, which imply how companies can maximize sales with limited resources. The main resource of the company is the financial resources derived from debt or capital itself to generate sales growth. Therefore, an important indicator of financial performance is sales-based, which is predicted through sales growth. Sales growth is used as the basis for the preparation of pro-forma projections financial statements (Ross, 2012; Higgins, 2008). Expectations on sales growth as a basis for determining external and internal funding are estimated through retention ratios. Problems arising from sales are generally related to the prediction conditions, whether seasonality, uncertainty, sensitivity, following a particular trend or having life cycle product patterns, etc. (Grablowitz, Rudeloff and Voss, 2002), which, in turn, will affect cash flow. Therefore, cash needs to be adjusted based on the pattern of the sales when planning for cash budget. For large companies, cash planning becomes important and as to how financial planning can be ensured and consistent with the commitment of managers and shareholders. In this article, the actual growth of sales is concerned because it indicates that growth can affect cash flow and funding problems from slow growth and rapid growth, which, in turn, have an impact on company value. Actual growth can be measured from sales growth with the following formula:

\[
\text{Actual Growth} = \frac{\text{Sales}_{t} - \text{Sales}_{t-1}}{\text{Sales}_{t-1}} \quad \text{(Home and Wachowicz, 2005)}
\]

### 2.1.2. Sustainable growth

Sustainable growth is the maximum percentage of sales growth that can be achieved based on operational targets, debt and dividend distribution rates (Van Horne, 2002). Sustainable Growth is a growth that requires capital by self-financing in conditions of unchanged leverage (Constantin, 2015; Higgins, 1977). According to Ross, Westerfield and Jaffe (2012), sustainable growth rate can be determined by setting a set of profit rate variables, dividend distribution rate and ROA without increasing equity. Meanwhile, Churchill and Mullins (2001) state that sustainable growth rate is the company’s sustainable growth rate from sales without any additional funding. The sustainable
growth rate is the maximum percentage of asset sales or profit growth when the financial and operational parameters are in line with the agreed management objectives and market expectations. Sustainable growth is the maximum sustainable growth rate without increasing financial leverage (Campbell, 2004). Cash flow based on sustainable growth is the level at which a company maintains its sales by maintaining a constant cash flow. Sustainable growth is the percentage of annual sales growth in terms of an agreement with a defined funding policy (Higgins, 1977). Sustainable growth is the maximum level of sales growth without receiving capital from investors and any long-term debt (Ross, Westerfield and Jordan, 2012; Snyman, 1999). The sustainable growth model shows how the measurement of operational and financial performance, such as ROA, Dividend Pay Out, Profit Margin, Turnover Assets and Financial Leverage interact (Olson and Pagano, 2005). Higgins (2008) introduced how growth is viewed from a defined financial dimension with the Sustainable Growth Rate, defined as the maximum level of sales that can be increased without undermining financial resources. It is, therefore, important to understand the need to limit growth to maintain financial strength. This indicates that, for a company that grows at a rate that exceeds the sustainable growth of the company, it would be better to increase profit margins, or turnover ratio assets to determine funding decisions, which are represented by retention or financial leverage. Sustainable growth can be formulated as:

\[ g = \text{retention} \times \text{ROE} \] (Higgins, 1992).

If actual growth is bigger than sustainable growth

Higgins (2008) argues that excessive growth impacts on financial problems and poses a challenge for firms to increase debt capacity. It is, therefore, important to anticipate the disparity between actual and sustainable growth, which is a challenge for financial management. For this, management needs to know at which limit the growth positions on the balance of growth. Higgins (2008) explains that, in conditions where the company has a very high growth, where actual growth exceeds sustainable growth, the first step is to determine how long the situation will take place. Under sustainable growth conditions smaller than actual growth, then there is ‘no value for shareholders’.

If actual growth is smaller than sustainable growth

If the company has very small growth or sustainable growth greater than actual growth, management has a dilemma in excess cash flow. In this case, the company can
reduce leverage for a lower balance growth, but the cash must overflow. As Higgins (2008) explains, this problem needs to be determined as to whether it is a temporary or long-term problem; if the problem is short run, the company can accumulate resources to anticipate future growth. However, if the problem is long term, then it indicates the lack of growth in an industry; therefore, the company must create new growth or create new investments to diversify, increase dividends or buy back shares.

If the rate of growth declines in the near future or the company reaches the maturity stage, the problem arises as to how a transition can be solved through debt. In the future, the actual growth will be lower than sustainable growth, so, for a long-term sustainable growth strategy, a combination can be performed, such as issuing new shares, increasing debt, reducing dividend payout, reducing marginal costs, outsourcing some or all production, increasing prices or merging in the event of a cash cow. To way to eliminate low growth is by buying growth, by maintaining the ability of managers and concerns on key employees to respond to excess cash flow by diversifying into other businesses or investing in businesses that have growth in the industrial environment.

Balance growth is a model of equation that reflects the combination of sales growth and return to assets that emphasize on self-financing by maintaining a constant debt to equity ratio; this combination has implications for surplus areas or cash deficits. Companies with sales growth positions on the left of the line of ‘balance growth’ show cash deficit, while a company having sales growth below the right line indicates a cash surplus area. Balance growth is formulated as follows:

\[ g = R \times T \times ROA, \]

where \( g \) = balance growth; \( R \) = retention ratio; \( T \) = Asset to Equity Ratio; \( ROA \) = Return On Assets

Among several empirical studies on sustainable growth, Amouzes (2011) found a significant relationship between SGR and financial performance using variables such as ROA, PBV and Current Acid Ratio. Chen and Gupta (2011) used a sustainable growth dynamic model by optimizing growth rate and payout ratio. Lockwood and Larry (2010) examined the relationship of sustainable growth and stock return in the long run and found that companies with high sustainable growth tend to have risk, low book to market ratio and low return. Olson and Pagano (2005) conducted a merger and acquisition study and found that the sustainable growth variable of acquirer and merger companies was no different. Pandit and Tejani (2011) concluded there is a consistent relationship between profit margin, turnover, leverage and retained earning assets to manage sales growth at SGR level. Nasim and Fetti (2015) showed that there is an
effect of profit margin, turnover assets and leverage on SGR. Platt, Platt and Chen (1995), assuming that sustainable growth rate is a growth rate of sales without selling securities and maintaining capital structure, showed how company sales grow without increasing debt and using debt, enabling the company to set target sales growth and determine profitability improvement on each component of product or customer, while Ghosh (2003) found macro factors impacted unsustainability growth. This is in line with other studies showing that financial indicators related to financial regulators to test sustainability performance (Olaf 2017) found that a bi-directional relationship between financial performance indicators (total assets, net profit, ROA and ROE) with sustainability performance, in line with the Dam and Scholtens research (2015). Other authors used a Granger test to test bi-directional between financial performance with sustained performance (Waddock and Graves, 1997; Fischer and Sawczyn, 2013) and Zahid (2016) examined corporate sustainability using economic, environmental and social dimensions. In addition, sustainable growth is a systemic condition that can be influenced by external factors, (Higgins 1981; 2008), in that external conditions have an impact on nominal value differences and real values that can be explained by the Fischer effect. The growth of value-oriented companies places more emphasis on sustainable growth rate (Chen, Gupta and Lee, 2013). Sustainable shareholder value has diverse explanations in an academic context. However, the main idea of all sustainable definitions is that there are interactions of three major systems, environmental, social and economic. The best way to be sustainable is to implement a strategic plan in accordance with the company’s objectives, so it can be concluded that sustainable shareholder value is the application of corporate strategy and policy (Lee, et al. 2017).

The purpose of this study is to further explain the Higgins (2008) model of sustainable growth by examining whether there is a difference between sustainability growth, actual growth and balance growth and how is the relationship between sustainable growth with the Dividend Pay Out Ratio, Price Earnings Ratio, Debt to Equity Ratio and Asset Turnover ratio. The empirical research is conducted on manufacturing companies listed on the Indonesia Stock Exchange in 2012–2016.

3. Method

The study was conducted on 124 companies engaged in the manufacturing sector listed on the Jakarta Stock Exchange from 2012 to 2016, with the total of 620 sample data. The data were then selected based on the assumptions: positive net profit margin and retention rate; therefore, 466 data were then selected. The analytical technique is
4. Results and Discussion

4.1. The relationship between actual growth, sustainable growth and balance growth

The essence of sustainable growth is related to the retention ratio as self-financing to increase the company’s sales growth. It is, therefore, important to give an insight to the companies that pay dividends and those that do not. Of 466 corporate samples, 41.9% distributed dividends and the other 58.2% did not. From the results of the study, it is shown that 52.6% of the sample companies are in positive slack, which means that actual growth is greater than sustainable growth, and 47.4% indicates negative slack. As Higgins (2008) explains, there is the possibility of differences in the firm between actual growth with sustainable growth. The difference between actual growth and sustainable growth in this study is called ‘slack AGR-SGR’. If there is positive slack, it means actual growth is greater than sustainable growth. Conversely, if there is negative slack, it means actual growth is smaller than sustainable growth. Positive slack indicates the condition of no shareholder value, while negative slack is an indication of excess cash that allows the company to increase dividend or buy stock return or new business investment. Furthermore, when actual growth is compared to balance growth, referred to in this study as ‘slack AGR-BGR’, if AGR is greater than BGR, it means cash deficit occurs, otherwise, if AGR is smaller than BGR, cash surplus occurs. The results are as shown in Table 1.

Average actual growth and sustainable growth if grouped based on interval range, then slow growth, moderate and high growth show a relationship between actual growth, sustainable growth and balance growth. The slices between the three groups can be seen in Table 2.
It is also important to test whether there are significant differences between the sample groups AGR and SGR, between AGR and BGR and between BGR and SGR which have three paired samples. The test results, using compare mean and paired sample test descriptively showed average growth ranged from 3% to 6% with error mean standard between 0.2% and 0.7%. However, in AGR data there is a very high standard deviation of growth value; this is because most AGR data show negative growth, and, statistically, causing an AGR and SGR relationship cannot be concluded. To overcome this, the researcher grouped the samples that had negative growth, of which there were 152 samples, and positive growth, 314 samples. The sample is grouped into AGR with dummy variable 0 when AGR is negative and dummy variable = 1 when AGR is positive. The result of paired samples test shows that there are significant differences between AGR-SGR, BGR-SGR and AGT-BGR as well as for positive sample groups, indicating significant differences for each sample group.

Table 3 represents the difference in AG, SG, and BGR in two different groups: Companies with positive sales growth and companies with negative sales growth.

In sample groups with negative sales growth:

Table 1: Slack Value Between AGR, SGR, and BGR in sample companies.

<table>
<thead>
<tr>
<th>Slack</th>
<th>Percentage Number of Companies</th>
<th>Percentage Number of Companies</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>slack AGR-SGR</td>
<td>AGR &lt; SGR = 221 Companies (47.4%)</td>
<td>AGR &gt; SGR = 245 Companies (52.6%)</td>
<td>466</td>
</tr>
<tr>
<td>slack AGR-BGR</td>
<td>AGR &lt; BGR = 194 Companies (41.6%)</td>
<td>AGR &gt; BGR = 272 Companies (58.4%)</td>
<td>466</td>
</tr>
<tr>
<td>slack BGR-SGR</td>
<td>BGR &lt; SGR = 391 Companies (83.9%)</td>
<td>BGR &gt; SGR = 75 Companies (16.1%)</td>
<td>466</td>
</tr>
</tbody>
</table>

Source: Processed data from Indonesia Stock Exchange.

Table 2: The combination of AGR, SGR, and BGR Sample.

<table>
<thead>
<tr>
<th>Actual Growth</th>
<th>Sustainable Growth Rate (SGR)</th>
<th>Low Growth %</th>
<th>Moderate Growth %</th>
<th>High Growth %</th>
<th>Total</th>
<th>Chi Square Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Growth</td>
<td></td>
<td>63</td>
<td>40.65</td>
<td>54</td>
<td>34.39</td>
<td>41   26.62</td>
</tr>
<tr>
<td>Moderate Growth</td>
<td></td>
<td>54</td>
<td>34.84</td>
<td>58</td>
<td>36.94</td>
<td>56   36.36</td>
</tr>
<tr>
<td>High Growth</td>
<td></td>
<td>38</td>
<td>24.52</td>
<td>45</td>
<td>28.66</td>
<td>57   37.01</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>155</td>
<td>33.26</td>
<td>157</td>
<td>33.69</td>
<td>154  33.05</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Actual Growth</th>
<th>Balance Growth (BGR)</th>
<th>Low Growth %</th>
<th>Moderate Growth %</th>
<th>High Growth %</th>
<th>Total</th>
<th>Chi Square Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Growth</td>
<td></td>
<td>103</td>
<td>38.01</td>
<td>50</td>
<td>28.57</td>
<td>5    25</td>
</tr>
<tr>
<td>Moderate Growth</td>
<td></td>
<td>94</td>
<td>34.69</td>
<td>65</td>
<td>37.14</td>
<td>9    45</td>
</tr>
<tr>
<td>High Growth</td>
<td></td>
<td>74</td>
<td>27.31</td>
<td>60</td>
<td>34.29</td>
<td>6    30</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>271</td>
<td>58.15</td>
<td>175</td>
<td>37.55</td>
<td>20   4.29</td>
</tr>
</tbody>
</table>

Source: Processed data from Indonesia Stock Exchange.
The difference between AGR and SGR is $-15.45$, indicating that the growth of AGR is lower by $15.45\%$ than SGR. However, these differences between BGR and SGR are smaller than those in SGR and BGR, which is $-2.8\%$. This means that company growth with the policy of maintaining internal fund structure (internal growth) has not been able to overcome the sustainable growth rate.

In sample groups with positive sales growth:

The difference between AGR and SGR is about $7.15\%$, indicating that the average of sales growth is bigger by $7.15\%$ compared to SGR. This indicates that the sales growth does not have any implications on shareholders, which are reflected by SGR. Similarly, the negative value of BGR-SGR of $-2.73\%$ showing that the companies have not been able to increase SGR even though they have positive sales growth and are balancing the sources of funds and assets. Furthermore, the difference between AGR and BGR of $+9.9\%$ shows that the growth of AGR is bigger than BGR, which reflects the relation between sales growths, return to assets and retention ratio. This indicates that the companies have not been able to maintain internal source of funds along with the growth of sales.

## Table 3: Paired samples test with negative and positive Actual Growth Sales (AGR) samples.

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>Negative Actual Growth (AGR)</th>
<th>Positive Actual Growth (AGR)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>AGR – SGR</td>
<td>-15.45</td>
<td>11.09</td>
</tr>
<tr>
<td>BGR – SGR</td>
<td>-2.79</td>
<td>4.96</td>
</tr>
<tr>
<td>AGR – BGR</td>
<td>-12.66</td>
<td>9.42</td>
</tr>
</tbody>
</table>


## Table 4: Analysis of Variance Test (multiple comparisons).

<table>
<thead>
<tr>
<th>Variable Percentile Group</th>
<th>MEAN DIFFERENCE (SIGNIFICANT)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NPM</td>
</tr>
<tr>
<td>AGR&lt;sub&gt;LOW&lt;/sub&gt; – AGR&lt;sub&gt;MODERATE&lt;/sub&gt;</td>
<td>-1.45 (0.114)</td>
</tr>
<tr>
<td>AGR&lt;sub&gt;LOW&lt;/sub&gt; – AGR&lt;sub&gt;High&lt;/sub&gt;</td>
<td>-1.23 (0.185)</td>
</tr>
<tr>
<td>AGR&lt;sub&gt;MODERATE&lt;/sub&gt; – AGR&lt;sub&gt;High&lt;/sub&gt;</td>
<td>0.22 (0.810)</td>
</tr>
<tr>
<td>BGR&lt;sub&gt;LOW&lt;/sub&gt; – BGR&lt;sub&gt;MODERATE&lt;/sub&gt;</td>
<td>-1.15 (.002)</td>
</tr>
<tr>
<td>BGR&lt;sub&gt;LOW&lt;/sub&gt; – BGR&lt;sub&gt;High&lt;/sub&gt;</td>
<td>-1.89 (.000)</td>
</tr>
<tr>
<td>BGR&lt;sub&gt;MODERATE&lt;/sub&gt; – BGR&lt;sub&gt;High&lt;/sub&gt;</td>
<td>-0.74 (.050)</td>
</tr>
<tr>
<td>SGR&lt;sub&gt;LOW&lt;/sub&gt; – SGR&lt;sub&gt;MODERATE&lt;/sub&gt;</td>
<td></td>
</tr>
<tr>
<td>SGR&lt;sub&gt;LOW&lt;/sub&gt; – SGR&lt;sub&gt;High&lt;/sub&gt;</td>
<td></td>
</tr>
<tr>
<td>SGR&lt;sub&gt;MODERATE&lt;/sub&gt; – SGR&lt;sub&gt;High&lt;/sub&gt;</td>
<td></td>
</tr>
</tbody>
</table>

Furthermore, it is shown that there is no difference in NPM and ATO in all AGR groups: AGR\textsubscript{low}, AGR\textsubscript{moderate} and AGR\textsubscript{high}. This indicates that NPM and ATO cannot explain the rate of growth. Moreover, in BGR groups, there is also no significant differences between DPR and PER. However, in PER, there are differences in each group, which shows that the higher the BGR, the higher the PER, indicating high company cash surplus and higher earnings per share. Nevertheless, the relationship between BGR and Dividend Payout Ratio cannot be explained. Lastly, SGR is associated with DER and it is found that the higher the SGR, the higher DER will be. This is different to Higgins (2008), which showed high SGR and indicates companies were using internal source of funds to fund their activities. In our findings, high sustainable growth indicates high use of debt, which can be seen by the difference in DER between high SGR group and moderate SGR group of 39.5%.

5. Conclusion

Net profit margin (NPM) and asset turnover (ATO) as one indicator of the company’s operational efficiency can increase from sales growth (AGR), meaning that higher sales growth will result in higher net profit margin as well as assets turnover. It is found that there are differences in NPM in the sample group with low or high growth rate, meaning the higher the sales growth, the higher NPM will be. However, it is found that the lower the sales growth, the higher ATO will be, indicating there are internal problems within the company. If there is a growth or decline in sales in the long term, in general, the company will make a decision to balance the financial position, by debt or dividends, due to excess cash when the company has experienced the stage of maturity. This relationship is seen from the position of a company’s balance growth (BGR), meaning BGR is related to the company’s cash balance. If the company has cash surplus, in general, the company will increase the dividend (DPR) or price earnings ratio (PER). The higher the BGR, the higher PER and DPR will be. The findings indicate that there is a high DPR and PER in the sample group with high BGR, conversely, there is a low DPR and PER in the low BGR group. This is in line with the concept of balance growth.

In general, sustainable growth (SGR) is associated with financial leverage (debt to equity ratio). The results showed that high DER was in both group of companies with low SGR and also high SGR. This is an indication that the SGR relationship cannot deduce DER. The interesting thing is that high SGR also happens to companies with high DER, which should be a company with high SGR, causing lower DER. But, in this study, it is
found that companies with high or low SGR have the potential to experience financial distress, which means that Grow and Broke has happened.

References


