TElkOM’S NEW WAVE BUSINESS VALUATION

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Abstract—Telkom’s share price in the Indonesian stock exchange (IDX) since 2007 growth lower comparing to the performance of the overall index. From year 2007 to the end of 2012, Telkom’s share price has dropped by approximately 10%, whereas the composite stock price index increased by about 130% in the same period. The low performance of Telkom stock price due to the high of competition level in Indonesia telecommunications business. The price war reduced phone rates, and the firm face a negative growth around 7% in 5 years. To anticipate negative growth, the management has decided to enter the business of New Wave as a new revenue stream. To determine the root cause of low performance of Telkom’s share price, The analysis should be done by calculating the fundamental value of Telkom. Telkom’s fundamental share price calculated using the Free Cash Flow to Equity (FCFE) and Dividend Discount Model (DDF) method as comparison. Based on FCFE, the fair fundamental prices shares amounted Rp.11.961, while based on DDF Telkom shares process is Rp. 13, 253. This result is not much different from the Telkom closing share price 2013 amounted Rp .9,050. To increase growth is to increase the proportion of new wave business. Increase in new wave business can be done with synergies between business units and subsidiaries in the Telkom Group. The programs are conducted on a unit must have an impact to other units, in order to support the business growth of new wave.

Keywords: stock, valuation

1. Introduction

Telkom are a state-owned enterprise that operates in the telecommunications and network service sector in Indonesia. The Government of the Republic of Indonesia is the Company’s majority shareholder, while the remainder of the Company’s common stock is owned by the public. The company’s shares are traded on Indonesia Stock Exchange, and publicity offered without listing in Japan. Telkom offers a broad range of network and telecommunication service, including domestic and international basic telecommunication services, the services are fixed line, fixed wireless (CDMA), and mobile cellular (GSM) as well as interconnection services used among other licensed operator (OLO). Telkom also provides Multimedia services such as content and applications, completing the business portfolio called Telecommunication, Information, Media, Edutainment, and Services (TIMES). The telecommunication (T) business is the fundamental platform of the company’s legacy-based business, the others business portfolio such as information, media, edutainment, and services (IMES), will be called as new wave businesses that lead the Company to keep innovating digital creative-based product. This confirms Telkom’s commitment to boost revenues amid more open competition in the industry. The Telecommunications Law (Law No.36/1999), which went into effect in September 2000, facilitated the entry of new players, intensifying the competition in the telecommunication industry. Tight competition environment and regulatory pressure brought the price war among the telecommunication operators cause lower revenue and profit margin. In order to anticipate the decline in telephone revenue stream, since year 2009 Telkom announce to become a TIMES company. The development of Information, Media, Edutainment, and Services (IMES) business portfolio is a strategy to create new revenue stream as well as ordinary telecommunication.
2. Business Issue Exploration

The objective of the firm is to maximize the value of the business or firm[Corporate Finance, Damodaran]. Based on the objective of the firm, any decision (investment, financial, or dividend) that increases the value of a business is considered a good one, whereas one that reduces firm value is considered a poor one.

Based on the Telkom’s stock performance comparing to the Jakarta Stock Index (JKSE), the Telkom’s stock performance lower than JKSE performance. During Januari, 2008 to 2012, Telkom’s stock price minus around 20% comparing to JKSE in the same period plus around 60%. To know the structuring Telkom financial policy by diagnosis of problem and evaluation of strategies that has taken by Telkom’s management. The framework of this purposes using framework of flexibility, risk, income, control, and timing (FRICT).

Also, it is important to known whereas the decision of Telkom’s to enter the New Wave Business (TIMES company) is a good or poor decision, we should be valuing the Telkom if the Telkom does not enter the New Wave Business comparing to the current situation (enter the New Wave Business).

Among the many ways to value a company, the valuation models based on discounted cash flow (DCF) remains the favorite of many practitioners and academics because it relies solely on the flow of cash in and out of the company, rather than on accounting-based earnings.

A. Conceptual Framework

![Conceptual Framework](image)

Figure 1. Conceptual Framework

B. Method of Data Collection and Analysis

The analyses of business situation are using valuation analysis to determine the fundamental value of Telkom. The fundamental value calculated by FCFE method and DDF method. FCFE give description of financial structure to construct fundamental value such as net income, capital expenditure, net debt, and working capital. DDF method is chosen due to the firm consistently pay dividend with significant payout ratio.

C. Analysis of Business Situation

In general, there are three approach of firm valuation: discounted cash flow valuation (DCF), relative valuation, and contingent claim valuation. The DCF relates the value of an asset to the present value (PV) of expected future cash flow on that asset. There are three paths to DCF valuation: value the equity, value the entire firm, and value the firm in pieces. The value of equity obtained by discounting expected cash flow to equity at the cost of equity. This final report will analyze the value of equity.

1) Valuation analysis using FCFE

\[
\text{Value of equity} = \sum_{t=1}^{n} \frac{CF_{t \to \text{equity}}}{(1 + ke)^t}
\]

Where 
- \( n \) = Life of the asset
- \( CF_{t \to \text{equity}} \) = Expected cash flow to equity in period \( t \)
- \( ke \) = Cost of equity
CF to equity is calculated by Free Cash Flow to Equity (FCFE) formula.

Free cash flow to equity = Net income – (Capital expenditure – Depreciation) – (Change in noncash working capital) + (New debt issued – Debt repayment)

Cost of equity, $ke$, calculate by using Capital Asset Pricing Model (CAPM), the risk and return model that has been in use the longest and is still the standard in most real-world analyses.

$$ke = rf + \beta \cdot (rm - rf)$$

Where,
- $rf$ = risk free rate
- $\beta$ = beta stock
- $rm$ = risk market premium

Based on the value of equity valuation, the cash flow forecasting in the future is the key to estimate the value precisely.

Considering the telecommunication industry situation, Telkom is a firm that is growing at a stable rate. The constant growth FCFE model is applied for calculate Telkom value. Under the constant growth model, the value of equity is a function of the expected FCFE in the next period, the stable growth rate, and the required rate of return.

$$P_0 = \frac{FCFE_1}{ke - gn}$$

Where,
- $P_0$ = Value of equity today
- $FCFE$ = Expected FCFE next year
- $ke$ = Cost of equity of the firm
- $gn$ = Growth rate in FCFE for the firm forever
- $Expected growth rate in net income,$
- $gn$ = Equity reinvestment rate X Non Cash ROE

Free cash flow to equity =

Net income – (Capital expenditure – Depreciation) – (Change in noncash working capital) + (New debt issued – Debt repayment)

Calculate the cost equity using the following formula:

$$ke = rf + \beta \cdot (rm - rf)$$

The risk free rate, $rf$, is 8.75%, based on the long term Indonesian Government Obligation (Surat utang Negara jangka panjang). The risk market premium, $rm$, is 8.10%, based on the IESE Business School survey 2012. The Telkom’s stock beta, $\beta$, is 0.60, based on the Reuters finance.

$$ke = 8.75\% + 0.60 \times 8.10\%$$

= 13.610%

Free cash flow to equity =

12,850 – (17,272 – 14,456 ) – (2,058) + (4,656 – 5,022 ) = 7,610 Billion Rupiah

<table>
<thead>
<tr>
<th>TABLE I.</th>
<th>TELKOM’S FINANCIAL DATA YEAR 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rp. Billion</td>
</tr>
<tr>
<td>Net Income</td>
<td>12,850</td>
</tr>
<tr>
<td>Capital expenditure</td>
<td>17,272</td>
</tr>
<tr>
<td>Depreciation &amp; Amortization</td>
<td>14,456</td>
</tr>
<tr>
<td>Change in noncash working capital</td>
<td>2058</td>
</tr>
<tr>
<td>New debt issued</td>
<td>4,656</td>
</tr>
<tr>
<td>Debt repayment</td>
<td>5,022</td>
</tr>
</tbody>
</table>

The FCFE1 calculate using $FCFE0(1+gn) = 7,610 \times (1 + 10\%) = 8,371 Billion Rupiah.

The Value of equity, $P_0 = 8,371 /\{13.610\% - 10\%\}$

= 231,883 Billion Rupiah

The numbers of outstanding shares are 19,386,339,320 shares.

The value per share = 231,883 Billion Rupiah / 19,386,339,320 shares.

= Rp 11,961/ share.
Comparing to the year 2012 Telkom’s stock closing price at Rp. 9,050 the stock price in market trade at discount.

The Telkom’s free cash flow to equity (FCFE) is different if Telkom does not enter the new wave business. If Telkom stay on legacy business, there are some financial different than if Telkom’s enter the new wave business. Assumed the different are follows:

- Net capital expenditure subtracted by the capital expenditure for new wave business.
- Revenue subtracted by revenue from new wave business, as described on the table Telkom’s new wave revenue stream.

Based on the above assumption, we can calculate the Telkom’s free cash flow to equity in order to valuing the Telkom without new wave business.

<table>
<thead>
<tr>
<th>Table II. Modified Financial Data</th>
<th>Rp. Billion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Income</td>
<td>5,579</td>
</tr>
<tr>
<td>Capital expenditure</td>
<td>15,610</td>
</tr>
<tr>
<td>Depreciation &amp; Amortization</td>
<td>14,456</td>
</tr>
<tr>
<td>Change in noncash working capital</td>
<td>2,058</td>
</tr>
<tr>
<td>New debt issued</td>
<td>4,656</td>
</tr>
<tr>
<td>Debt repayment</td>
<td>5,022</td>
</tr>
</tbody>
</table>

Free cash flow to equity, $FCFE_0 = \frac{5,579 - (15,610 - 14,456)}{2,058 + (4,656 - 5,022)} = 2,001$ Billion Rupiahs

The FCFE1 calculate using $FCFE_0(1+g) = 2,001 \times (1 + 10\%) = 2,201$ Billion Rupiah.

The Value of equity, $P_0 = \frac{2,201}{(13.610\% - 10\%)}$ Bil. Rupiah. = 60,972 Bil. Rupiah.

The numbers of outstanding shares are 19,386,339,320 shares.

The value per share = 60,972 Bil. Rupiah / 19,386,339,320 shares. = Rp. 3,145 / share

The FCFE valuation show that the Telkom’s fundamental value only Rp. 3,145 / share, indicate that better for Telkom enter the new wave business than stay in legacy (T) business.

2) Valuation analysis using Dividend Discount Model (DDM)

The DDM approach to calculate fundamental value is a good choice due to Telkom’s consistency to pay dividend. In recent 5 years the Telkom’s dividend policy keep in high payout ratio, detailed dividend policy presented in following table.

<table>
<thead>
<tr>
<th>Table III. Telkom’s Dividend Policy.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
</tr>
<tr>
<td>Payout Ratio</td>
</tr>
<tr>
<td>DPS (Rp)</td>
</tr>
</tbody>
</table>

Based on Telkom’s dividend policy in table above, Telkom always pay dividend every years. The dividend payout ratio ranging from 50% in year 2009 to 70% in year 2007. The dividend growths in year 2008 to 2012 are -34.86%, -2.99%, 11.99%, and 15.09%, 17.16% respectively.

The Gordon Growth Model can be used to value a firm with dividends growing at a steady rate. The formula is follows:

$$\text{Value of stock} = \frac{DPS}{k_e - g}$$

where, $DPS = \text{Expected dividends next year}$

$k_e = \text{Cost of equity}$

$g = \text{Growth rate in dividend forever}$
Assuming the dividend growth rate is 10% (Telkom’s growth double digit target), and the Cost of Equity ke is 13.610%.

\[
\text{Value of stock} = \frac{13,253.93 \times 110\%}{13.610\% - 10\%} = \text{Rp.13,253.93}
\]

Based on the DDM, the Telkom’s stock value is Rp. 13,253.93. Comparing to the year 2012 Telkom’s stock closing price at Rp. 9,050 the stock price in market trade at discount.
3) \textit{FRICT analysis}
   a) \textit{Flexibility}
   Telkom’s bonds rating lower than regional benchmark (Singtel and Telekom Malaysia). The lower bonds rating caused more higher required return of Telkom’s bonds issued. Telkom’s credit ratings: Pefindo rating: idAAA (stable outlook), Moody rating: Baa3, Fitch rating: BBB, Standard & Poor’s rating: BB+.
   Telkom’s current ratio is 0.958, comparing to TM 0.9 and Singtel 1.05, Telkom current ratio is in the average regional industry. Telkom’s Debt to equity ratio : 0.4, Debt service coverage ratio: 4.5.
   b) \textit{Risk}
   Telkom’s EPS Average: 583.90, Stdev: 38.31 has lower standard deviation (6.56%) comparing to regional benchmark Singtel 60.23%, TM 54.22%.
   Standard deviation of EBIT 9.82% lower than standard deviation of New wave revenue 36.42%.
   Based on this information, the new wave revenue more volatile than legacy business.
   c) \textit{Income}
   Enter the New wave business (TIMES) is a right decision, the Telkom’s value higher around more than three times than if Telkom stay on legacy business (T). Telkom’s TIMES (new wave) value per share is Rp 11.96, comparing to Telkom’s T (legacy) value per share is Rp. 3,145.
   Based on the history performance, Telkom’s is in down trend, projected ROE is lower than previous. Down trend of Telkom’s ROE with negative growth of ROE -4.03% per year.
   The new wave contribution to EPS increase from 5.54% in year 2007 to 15.06% in year 2011. The increase of new wave contribution is a sign that Telkom’s able to anticipate the growth of future revenue stream.
   d) \textit{Control}
   Government republic of Indonesia is the majority share holder. Also, have one series A Dwiwarna share that has voting right and the right to veto the appointment or removal any director or commissioner. Government Republic of Indonesia own 53.24% and Series A Dwiwarna share, and public own 46.76%.
   e) \textit{Timing}
   Down trend of loan rate from government bank (state owned) since 2007 is an opportunity for Telkom to business expansion in new wave.
   Telkom’s P/E ratio remain stable between 12.60 to 17.53, the industry standard P/E ratio is 13.5.
\textit{D. Root of Problem}

Having analyzed business situation using FCFE valuation, we can identified root of problem why Telkom’s market stock price performance lower than Jakarta composite index (IDX) performance.
   The Telkom’s stock valuation and market price:
   • The closing stock price on December 2012 is Rp. 9,050 /share.
   • The TIMES (new wave valuation) of Telkom’s stock price is Rp 11,961 / share (sell at discount price).
   • The T (legacy) of Telkom’s stock price is Rp. 3,145 / share (sell at premium).
   • The Telkom fair stock price between Rp. 3,145 / share and Rp 11,961 / share, the market stock price Rp. 9,050 /share is in the fair value range.
   The root causes are follows:
   • Telkom’s stock price performance lower than IDX because the fundamental performance value of Telkom (valuation using FCFE and DDM) lower than IDX performance.
   • To increase Telkom’s stock value, management should taken actions to increase the Telkom’s fundamental value.
Based on the FRICT analysis there are some opportunity to increase the Telkom’s fundamental value.

3. Business Solution

According to the preceding section of business issue exploration, the root cause of Telkom’s stock price performance lower than JKSE index because of its fundamental value. The fundamental value of Telkom’s stock price using FCFE and DDM near the market price. It is mean that the market highly consider the fundamental value of Telkom’s stock price. This Business Solution explain the business solution, including the alternative of business solution. Although the New Wave (TIMES) business make the fundamental value of the Telkom higher than legacy business only, the other consideration of regional operator benchmark will be discussed to give more justification wheter Telkom should enter New wave or stay on legacy business. The target stock price should be increase higher than JKSE performance. The product portfolio analysis using Boston Consulting Group (BCG) growth share matrix reviewed as a tools make recommendation which product portfolio among TIMES should be focused for growth in the future. The alternative solution of buyback program will be discussed to know how effective the impact of this program to increase the Telkom’s stock price. The analysis based on the share buyback program that has taken by Telkom since 2005 until 2012.

E. Alternative of Business Solution

Is Telkom better maintain new wave (TIMES) business or focus on legacy (T only)? To answer that question, better to analyze by benchmark to other regional operators, legacy business trend, and new wave (IMES) business trend. The Telkom’s proportion revenue stream of voice service around 56%, relatively higher than others regional operator (TM 41% and Singtel 54%). The Data Internet and IT services of Telkom around 34%, comparing to Telekom Malaysia 42%, and Singtel 30%.

Based on the regional benchmark, others operator also enters the new wave business with revenue stream from new wave between 30% – 42% of total revenue. Telkom is recommending entering the new wave business. Calculating the legacy (telephone) business trend is an important aspect of management consideration weather Telkom stay in legacy or enter the new wave business. Telkom’s revenue from legacy business in the down trend. The revenue in year 2007 is Rp. 43,224 Billion and in year 2012 Rp. 41,393, the lowest in year 2011 Rp. 40,217, there is negative growth around -7% in 5 years.

![Telephone Revenue Business Trend](image)

Based on the negative trend of the legacy business (telephone), Telkom should enter the new wave business to compensate the negative growth of legacy business. Data, Internet and Information Technology Services consist of Short Message Services (SMS) revenue stream and new wave revenue stream. In year 2007 this revenue Rp. 14,785 Billion and in year 2011 Rp. 23,924 Billion, the growth is positive around 62% in 5 years.
The average annual growth of Data, Internet and IT services business is 12%. The new wave growth during year 2008 to 2012 in average is 33% annually. The -7% annual growth of legacy business should be anticipate by 33% percent of new wave business.

Based on the positive trend of new wave business, Telkom should enter the new wave business (Data, Internet and Information Technology Services). The average JKSE index performance since year 2001 to year 2012 growth 21.53% annually.

Figure 3. Telkom New Wave Business Trend

Telkom’s stock price target should be growth minimal 21.53% annually, the stock price projection based on the 2012 closing price (Rp. 9,050) presented in following table:

<table>
<thead>
<tr>
<th>year</th>
<th>target price (Rp)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>10,877</td>
</tr>
<tr>
<td>2014</td>
<td>13,219</td>
</tr>
<tr>
<td>2015</td>
<td>16,065</td>
</tr>
<tr>
<td>2016</td>
<td>19,523</td>
</tr>
<tr>
<td>2017</td>
<td>23,727</td>
</tr>
</tbody>
</table>

F. Analysis of Business Solution

Based on the Telkom’s fundamental value, the target stock price in year 2017 is Rp 23,727 per share and the earning in year 2017 is Rp. 25,159 Billion to achieve that target stock price. Telkom has multiple product portfolio (TIMES) must ask themselves how these various product portfolio should be managed to boost overall corporate performance to achieve the target stock price and earnings. The most popular portfolio analysis technic is BCG (Boston Consulting Group) Growth Share Matrix. This is the simplest way to portray a corporate portfolio investment. The Telkom’s TIMES portfolio BCG Growth Share Matrix are follows:
Telecommunication (T) portfolio as cash cows should be maintaining their market share, focusing on revenue and profit margin. Information (I) portfolio as a Star should be maintaining their growth and market share. Edutainment and Media portfolio as a question mark are new products with potential for success, but they need a lot of cash for development. The Edutainment and Media should be gaining enough their market shares to become star portfolio. Sensitivity analysis is calculated to know the sensitivity of the Telkom’s value (stock Price) to the variability of the legacy revenue and new wave revenue.

The growth is the most sensitive variable to fundamental value, followed by risk free rate, and payout ratio. Management should focus on growth to maintain the fundamental value. The risk free rate is an uncontrolled variable by management, influenced by macro economic condition. Based on the sensitivity analysis, we found that growth is the #1 priority to influence the fundamental stock price. For better growth analysis in the future, we can simulate the growth by Monte Carlo simulation.

Based on the Monte Carlo simulation result above, the growth estimated 36% with standard deviation 17%. The result based on the variable input of historical legacy growth and new wave growth 1.89% sdev 10.44% and 31.8% sdev 22.5% respectively. The new wave and legacy proportion simulate 0% to 100% to simulate the wide possibility of proportion.

4. Conclusion and Implementation Plan

Based on the Telkom’s closing price Rp 9,050 oer share in year 2012 and the average JKSE performance 21.53% annually, the target stock price in year 2013 until 2017 presented in following figure.
Based on global trend, the new wave business is in growth trend. The future of telco revenue comes from new wave business. Price competition and technology substitutes tend the telco business to lower profit margin. For telco company like Telkom, entering new wave business is a must to prepare sustainable growth in the future.

By percentage of legacy and new wave, target new wave proportion is 56%. In year 2012 the new wave proportion is 19.73% of total. Target in year 2017, the optimal target should be reached. The target proportion presented in the following figure. To enter the new wave business is a big challenge for telco company, the nature of the new wave business different from the nature of the telco business (telephone). The company should prepare transformation, the total transformation for the organization, culture, human capital, competencies, business model, etc should be done by Telkom.

To boost the growth of new wave business, the acquisition and alliance should be taken by Telkom. Established new subsidiary is a way to enter the new wave business specifically. At the moment PT Multimedia Nusantara (Metra) is a subsidiary to running new wave business (IME), Metra has several subsidiary to running specified new wave business. Telkom has the leader of telco infrastructure in Indonesia, the position should be used as business competitive advantages. The negative legacy business growth should be reduced, fortunately in year 2012 the legacy business growth positively around 14%.

The legacy infrastructure should be support both the legacy business and new wave business. The new wave business should be fully supported by legacy infrastructure owned by Telkom. The Telkom’s infrastructure asset is a strategic position to develop new wave business. Telkom should maximize the telco infrastructure to offer better new wave services. For example the position of cellular market leader in Telkomsel should be used by offering new wave product to its customer.

To reduce the negative growth could be done by following action:

- International expansion: International expansion can be done by Telkom’s subsidiary and/or alliance to other company.
- Interconnection business, Telkom as huber provider both domestic or international huber.
- Focus on new segmented market such as government, micro or small company (UMKM).
- The telephone business should be revitalize by offering new infrastructure supported triple play services (voice, video, data) and synergize to offering new product to customer.
Based on global trend, the new wave business is in growth trend. The future of telco revenue comes from new wave business. Price competition and technology substitutes tend the telco business to lower profit margin. For telco company like Telkom, entering new wave business is a must to prepare sustainable growth in the future.

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