Quantitative analysis techniques: financial risks facing bmw group research paper...

(Name of your Institution)

Introduction

In terms of business economics, ' risk' refers to the assumption of an organization attaining profits that are below expected or forecasted levels. It could also refer to the possibility of a loss. There are several aspects that influence business risk. Some of these factors are unit price, volume sales, cost of production, and economic and political environment . Organizations that aim to lower risk in order to attain stability often maintain low debts. This enables the company to assure that its financial liabilities are always payable.

Maintaining low financial risk levels has become an imperative in the current corporate and economic environment around the globe. The global economic recession of 2008 proved to be deadly for several large corporations which had been deemed to be financially stable until they went bankrupt during the crisis. Subsequent financial upheavals in Greece, the United Arab Emirates and Egypt created further instability in the global market. As such, it is no longer sufficient for a company to maintain regular levels of risk, but there is a pressing need for organizations to be prepared to unforeseen and unpredictable market conditions, specifically financial crises. Relying on quantitative methods of analysis, organizations may derive critical insights that could drive informed decision making that would in turn result in more efficient risk management and mitigation.

Identifying Alternatives

The present study evaluates the business risks facing the BMW group. One of the leading automobile companies in the world, BMW is constantly facing a volatile market environment owing to the highly globalized nature of its business. While continued expansion raises several opportunities to promote growth, it also enhances the risks faced by the company. Further, fast paced expansion also leads to a higher degree of competition at a global as well as local platform. As such, it can be said that:

Global operations + rapid expansion + volatile environment + opportunity generation + increased competition = Higher risk.

This paper will evaluate the risks arising from BMW's globalization internationalization efforts. The paper will achieve this by conducting several quantitative analyses. These methods of analysis will be evaluated based on their suitability in determining the financial risk and stability of the company. The key measures being considered as alternative are: a) market volatility, and b) market comparison.

Criteria for Assessing Alternatives

The alternative methods of quantitative analysis identified not only have different means of measurement, but their effectiveness in identifying risk levels also differs. Hence, in order to select the most efficient and relevant quantitative analysis method, it is important that an evaluation criterion be set. As the alternatives selected are meant to gauge financial stability and risk at an international level, the first criteria would be the global nature of the data used for each analysis. Secondly, the analysis should be able to

yield benefits that go beyond merely identifying risks. As such, the second criteria would be broadness of scope of applicability of each analysis.

Evaluating Alternatives

In this section, the two alternative quantitative analysis methods selected, namely: a) Market volatility, and b) market comparison, will be discussed and evaluated against the criteria mentioned in the preceding section.

Market Volatility

In financial terms, ' volatility' refers to the changes in the price of a monetary instrument over a given span of time . For example, the time series of older market prices yields historic volatility, while current market price of a trading instrument – such as sticks – results in the implied volatility.

Using the standard deviation method – which includes standard deviation, coefficient of variance, mean, and rank – the variation of the market price of BMW's shares may be determined. The higher the standard deviation, the more volatile the price of the company's shares will be, thereby leading to higher risk. However, if the variation between the market price of shares over a set number of years is reasonably constant, it would imply that the company has a significant degree of market stability. Further, if the market price of the shares of BMW are steadily increasing over the years, it would imply that the company is successfully attracting investors.

Although a steady standard deviation and increasing market share price would indicate the financial stability of BMW, it should be noted that sudden changes in the operating environment, such as the global economic

recession of 2008, would pose a major and serious threat to the company's survival. As such, although the company may currently be in a state of financial stability, its operating market environment remains highly volatile. If the company relies on the market volatility analysis for gauging its financial stability, it may not gain significant insights into critical aspects such as debt ratios and competition insights. It will need to be able to control such aspects in order to ensure success.

Market Comparison

Conducting a quantitative analysis similar to the market volatility for competing firms would assist BMW in comparing its market performance against its rivals. Such a comparative analysis of stock values is known as Market Comparison . By measuring the share value of rival firms over a fixed number of years and then comparing the findings with BMW's share values during the same period, the company will be able to measure how it has performed in terms of financial stability against the performance of rivals. During normal economic conditions, such an analysis would enable the company to maintain a stable financial state as well as profitability. In the case of drastic changes in the global economic environment, such as the financial crisis of 2008 and subsequent crises in the European Union and Middle East regions, market comparison analysis will enable BMW to identify how it is coping with risks when compared to its rivals.

Selecting an Alternative

Of the two alternatives discussed above, market comparison matches the evaluation criteria better than market volatility. To begin with, market

comparison would inadvertently include market volatility analysis as BMW would need to first evaluate its own share value in order to compare with that of competitors. Secondly, by conducting an analysis of competitors, the market comparison would provide the organization with further insights into the competition's financial strength and stability. This would, in turn, enable BMW to identify opportunities and threats that it could leverage and mitigate accordingly.

Implementing the Alternative

In order to carry out the market comparison analysis, BMW could first need to conduct a market volatility analysis to gauge the variation of its own stock values. Once it has gained sufficient data pertaining to its own share performance over a set period of time, it would then undertake the volatility analysis of its competitors. For example, if BMW seeks to identify its financial stability over the past 5 years, it would first conduct a market volatility analysis for the years 2009 to 2013. Having acquired this data, it would conduct a similar analysis for competitors during the same period. Alternatively, benchmarks for stock markets – such as Eurostoxx which is the benchmark for the European stock market – may be used to derive quantitative data pertaining to share price fluctuations and volatility.

Evaluation Process

Once the company's market volatility has been determined and the share values of rivals has been measured, a year on year comparison between the stock performance of BMW and its rivals can be performed. For instance, by comparing share values during the years 2009 and 2010, it can be found

how well BMW was able to mitigate the risks arising from the global economic recession of 2008 when compared to its rivals. Similarly, rising stock prices in the year 2011 would indicate how effectively BMW has been able to capitalize on the recovery period in comparison to its competitors. Hence, through market comparison analysis, BMW would not only be able to measure its own performance during a given year or period, but also compare it with rivals across the globe and, hence, better identify its level of financial performance. In times of financial crisis and insecurity, the firm will be able to evaluate it financial weaknesses and thereby devise strategies that would allow it to tide the uncertainties arising from a highly volatile international financial environment. As such, the market comparison method of quantitative analysis would significantly assist BMW in the assessment and mitigation of its financial risks.

Works Cited

Apostolakis, G. E. (2004). Prespective: How useful is quantitative risk assessment? Risk Analysis, 24(3), 515-520. Retrieved June 24, 2014, from http://josiah. berkeley. edu/2007Fall/NE275/CourseReader/7. pdf

De Santis, G., & Imrohoroglu, S. (1994). Discussion paper 93 - Stock returns and volatility in emerging financial markets. Federal Reserve Bank of Minneapolis. Minneapolis: Institute for Empirical Macroeconomics.

Lexecon. (2005). An introduction to quantitative techniques in competition analysis. London: Lexecon. Retrieved June 24, 2014, from http://www. crai. com/ecp/assets/quantitative_techniques. pdf