Scenario analysis is a tool that is essential in both decision making and financial risk measurement. It plays an essential role in the measurement of operational risk. It evaluates future states with respect to certain characteristics as well as current states with regard to that characteristic for an entity (Babble & Dutta, 2010).

The 3 scenarios analysis done in the financial risk analysis of Bayside’s open MRI project is not only sufficient but is essential to the scenario analysis of Bayside’s open MRI project. I am of the opinion that this is okay and more is not necessary.

Gapenski (2013) defines “risk as the chance that an unfavorable event will occur”. According to Gapenski (2013); “the goal of project risk analysis is ensuring that the opportunity cost of capital used as the discount rate in a project’s ROI analysis properly reflects the riskiness of that project”.

Techniques for assessing project risk are;

(i) Quantitative techniques

- Sensitivity analysis
- Scenario analysis

(ii) Qualitative techniques (Gapenski, 2013).

“Scenario analysis considers the sensitivity of net present value (NPV) to changes in uncertain cash flow components, the likely range of component values, and the interactions among components”. Though scenario analysis provides useful information about a project’s risk, its limitations are that it considers only a few possible outcomes and implies a definite relationship among the uncertain variables (Gapenski, 2013).

According to Gapenski (2013); “scenario analysis tends to create extreme profitability values for the worst and best cases because it automatically combines all worst and best input values, even if these values actually have only a remote chance of occurring together”.

According to Gapenski (2013); “more scenarios lessen the problem associated with extreme values and more scenarios add additional realism and provide more information for decision makers. But then, the greater the number of scenarios, the more difficult it is to interpret the results. Thus, the entire process is easier if 3 scenarios are used rather than 9”.

Although I like even numbers better, I would say the optimal number of scenarios is 3. I do not think having an odd or an even number of scenarios makes a scenario analysis better but, I do think that having an optimal number of scenarios in each scenario analysis makes a scenario analysis better. Unfortunately, I do not have any theoretical reason to state 3 as the optimal number but just a practical reason. This is because I think managers being human beings can easily handle 2 scenarios and a third one will be a complimentary scenario which will act as a check and balance.
Having more than the optimal number of scenarios will certainly increase forecasting difficulty, make analysis more difficult and more time consuming (Gapenski, 2013).

Thanks,
Dr. Adeniyi

References
