Executive Summary

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This project aims to see how I can integrate and use BI tool (QlikView and Tableau) on top of my dimension model.

QlikView is super intuitive and starts creating a rough relationship model between my dimension and fact tables, even though that relationship is not 100% correct but we can use that as a steppingstone to start our work. There were synthetic keys which got created as it tried to join multiple common fields between various tables. I resolved them by aliasing some of the attribute names in tables. We used concatenation to help resolve the loop issues that were formed between both fact tables and their conformed dimensions.

QlikView gave lot of scope for ETL functionality, allowing to transform the data like aliasing, efficient way of loading data like RESIDENT LOAD. The concept of building applications enables us to customize the front-end part to a great extent. Even though the User Interface may not look that fancy as that of Tableau but still QlikView gives an overall control of both front end and back end of application. As my data size was insignificant so I didn't notice the benefit of in-memory processing of QlikView but would be a deciding factor if I had to suggest in case of huge data.

Tableau on the other hand is an easy-to-use tool with more appealing visualizations and the ability to connect to various data sources. It's more drag and drop rather than building back end here. We saw how tableau was not allowing loops to get formed and was aliasing the fact table instead. I didn't felt this to be best solution as fact tables are generally huge and every time a entry happens it has to be included in both the tables, thus taking more storage space. We used UNION between both the fact tables allowing us to have data like what we saw when we did concatenation in QlikView, which helped resolve loops and included data from both the fact tables. Features like Date Hierarchies and categories helped me get some of the visualizations in a very easy way as compared to QlikView.

After analyzing the visualizations, I was getting similar plots in both BI tools as data itself was similar in both situations. So, from a BI developer perspective I would prefer QlikView as it allows me to depend less on DBA for data transformations and gives me more scope to work on data. If my situation wants me to provide quick reports of large data, then in that case in-memory processing of QlikView would be great. Whereas, if my situation demanded beautiful visualizations and not worried much about performance of the tool, then Tableau would be best.