

A Predictive Model of Supply and Demand in the State of Jalisco, Mexico

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Abstract : Business Intelligence (BI) has become a major source of competitive advantages for firms around the world. BI has been defined as the process of data visualization and reporting for understanding what happened and what is happening. Moreover, BI has been studied for its predictive capabilities in the context of trade and financial transactions. The current literature has identified that BI permits managers to identify market trends, understand customer relations, and predict demand for their products and services. This last capability of BI has been of special concern to academics. Specifically, due to its power to build predictive models adaptable to specific time horizons and geographical regions. However, the current literature of BI focuses on predicting specific markets and industries because the impact of such predictive models was relevant to specific industries or organizations. Currently, the existing literature has not developed a predictive model of BI that takes into consideration the whole economy of a geographical area. This paper seeks to create a predictive model of BI that would show the bigger picture of a geographical area. This paper uses a data set from the Secretary of Economic Development of the state of Jalisco, Mexico. Such data set includes data from all the commercial transactions that occurred in the state in the last years. By analyzing such data set, it will be possible to generate a BI model that predicts supply and demand from specific industries around the state of Jalisco. This research has at least three contributions. Firstly, a methodological contribution to the BI literature by generating the predictive supply and demand model. Secondly, a theoretical contribution to BI current understanding. The model presented in this paper incorporates the whole picture of the economic field instead of focusing on a specific industry. Lastly, a practical contribution might be relevant to local governments that seek to improve their economic performance by implementing BI in their policy planning.

Keywords : business intelligence, predictive model, supply and demand, Mexico

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