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## WHAT MAKES DECISION ANALYSIS AN EFFICIENT METHODOLOGY?

To build effective operational functionalities within the Supply Chain Management Sector a strong connection needs to be established among the organization and the modern day technology. With the easy reach to the available resources it is of vital importance to achieve the potential business solutions. A significant decision formulation is arrived at after a thorough analysis of the data. An array of requisite skills are necessary to perform tasks with proficiency. From Data Wrangling on Big Query to Model Building using Machine Learning Algorithms, these digitally sound approaches backs the organizational decisions strongly.

An extensive data analysis is critical to understand the current problems that lie within the business and the probable measures that can be taken to resolve them. Thus, assisting in risk mitigation for the business along with having the capability to deal with sudden consumer behaviors considering the external factors like seasonality, trends and global impacts can be the cause for the change in behavior. Furthermore, preparing for the worst in future now becomes much simpler by applying the business decisions.

To cope with the rising competition a digital knowledge that fits well within the realms of business principles is crucial. The most influential decisions are made by rightly gathering the information and structuring of data followed by efficient evaluation of the prospective decisions arrived at and summing it up with analysis of whether the decision arrived at is sensitive to assumptions that have been made. Strategizing the information into communications that hold grave importance by applying the required knowledge and agile methodologies.

## APPLICATIONS OF DECISION ANALYSIS

With the ever increasing demand of consumer products its very natural to witness the behavioral altercation on a global scale. The supply chain industry that is the most responsive to these constant demand changes of the consumers will survive. Emphasizing on improvisation and development of operational resolutions via the application innovative tech to efficaciously manage the businesses across diverse set of industries in the supply chain market. Hence smart investment in the digital technology to tackle the information and knowledge in the supply chain department as well as better data management procedures form the decision making tools available currently which can well resonate with the profits made in the business.

An approach by using decision trees that captures the risks entailed by the supply chain business, the probability of occurrence of an event, financial cost incurred due to a disaster along with operating cost while working with many suppliers is all taken care by the decision tree approach. This leads to the development of a cost function and optimal number of suppliers that is a necessity. Another methodology that can be overlooked in terms of business growth is reverse supply chain methods. Although not the conventional form therefore followed formula on price decisions fail to act, rather these decisions are based on the reverse supply chain among the manufacturer and the retailer. Equilibrium with the non cooperative and cooperative lead to a coordination in a price decision where effectively of every decision can be further analyzed. An interesting shift from the purchasing of products to buying services that make use of recycled products and raw materials has been the trend in few industries.

To abide by the environmental regulations posed by the respective government departments and increase in the general awareness of the public it is critical to adopt relevant transformational measures in the supply chain sector. The green supply chain method (GSCM), in contrast to the reverse supply chain, aims at consistent improvement in the environmental performance of their products and

in the manufacturing procedures. This creates awareness among the various competitors of supply chain industry and assists suppliers to recognize the importance of solving the environmental issues to attain sustainable goals. A multi objective decision making procedure in GSCM is developed to help the supply chain manager understand the performance of the suppliers using Analytical hierarchy Process (AHP) in decision making method. In addition, to bring reduction in the probable subjective bias while designing a weighing system a modification to the AHP using the fuzzy logic algorithm is deployed.

## CONCLUSION

Decision Analysis forms the grounds for the hundred of years on both philosophical and pragmatic thoughts in reference to uncertainty and decision making. Despite the fact that human mind might pose an eventual constraint having conceptual clarity and exploring progress in the domain of scope, skill, and efficiency should ideally lead to a global usage. Normative and descriptive decision making processes have a key conceptual distinction. Nevertheless, the formulation, elicitation and appraisal of the decision problem are undergoing drastic improvements, the innovative twist is the strategy generating table alternative. Ensuring effective and efficient analysis decision quality ideas owe the responsibility.

A new clarity between the decision maker and the analyst is the influence diagram which dictates the understanding and mathematical logic behind it. Regardless of the what the topic of conversation is, the test of clarity is method to assure that the topic is well understood incorporating both the direct and indirect preferences. Resorting to risk reduction to encounter better tolerant preferences to the financial measures of the corporation. For instance, the spreadsheets, decision trees and influence diagram are fast solutions. Incorporating the computer intellect has ever increased the massive benefit of decision making on much wider scale than ever before. Hence decision analysis is meant to embark a ground breaking utilization in the human lives.