

# **Indian Institute of Management Kozhikode**

## **Case Study**

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# **Decision Tree for calculating BATNA**

G. Sridhar<sup>1</sup> Anjan Kumar Swain<sup>2</sup>

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Please contact the corresponding authors if you would like to access the full case.

<sup>1</sup>Professor, Marketing Management, Indian Institute of Management, Kozhikode, IIMK Campus PO, Kunnamangalam, Kozhikode, Kerala 673570, India; Email: drgsridhar@iimk.ac.in, Phone Number (+91) 495 – 2809104

<sup>2</sup>Professor, Information Technology and Systems, Indian Institute of Management, Kozhikode, IIMK Campus PO, Kunnamangalam, Kozhikode, Kerala 673570, India; Email: akswain@iimk.ac.in, Phone Number (+91) 495 – 2809246

# **Decision Tree for calculating BATNA<sup>1</sup>**

Vidyasagara was pursuing vanijya vyapara shastra (business studies) at Nalanda University which was about 6 yojanas (~70 kms) from the capital city - Pataliputra. Traders from multiple towns and villages travelled to Pataliputra for trade. With about 50 silver coins he could reach the capital city.

#### **BATNA**

He met a merchant from the city of Vaishali who was selling garments. As part of negotiating the purchase, Vidyasagara offered 100 silver coins for a Dhanusha (about 2 meters). The merchant immediately refused as he said that it was as good as his travel cost to the market. He would sell it at 200 silver coins only to students and king's servants. However, he generally sells at 500 silver coins Surprised at this price, Vidyasagara asked if the merchant could ever sell at such a price? He replied every 60 out of 100 times he visited Pataliputra.

This reply quickly rekindled his acharya (teacher) words that whenever there is an expected probability of sale, the estimated value of the sales (aka BATNA) reduces. He also remembered faintly that they discussed निर्णयावली (aka Decision Tree analysis) that would help in calculating the BATNA.

His acharya told that decision tree analysis illuminates aspects of BATNA which help in negotiating with the other party.

It helps in understanding the risk tolerance and look forward and reason back<sup>2</sup>.

He then wondered if he was the only customer who is interested in the garment what would be the BATNA for the merchant. If so, how to calculate BATNA using decision tree analysis?

Answer the following questions;

What is the BATNA for the merchant? Use simple decision tree to explain your answer.

Should Vidyasagar continue to bargain at 100 silver coins with the knowledge of BATNA of the merchant?

<sup>&</sup>lt;sup>1</sup> Case authored by Dr. G. Sridhar and Dr. Anjan Kumar Swain.

<sup>&</sup>lt;sup>2</sup> https://www.pon.harvard.edu/daily/batna/take-your-batna-to-the-next-level/

Research Office Indian Institute of Management Kozhikode IIMK Campus P. O., Kozhikode, Kerala, India, PIN - 673 570

Phone: +91-495-2809238 Email: research@iimk.ac.in

Web: https://iimk.ac.in/faculty/publicationmenu.php

