Pricing policy is a sensitive and critical issue in today's competitive and dynamic market environment. This is especially true in the analysis of price structure in a supply chain where uncertainty in many factors can have a profound effect on the supply chain performance. In this paper, we propose a novel approach to determine the price in a supply chain model in which several uncertain factors such as cost, inventory level, and competitors' prices have been considered. The objective here is to seek a coordinating, flexible pricing policy under uncertainty to maximize profit while meeting customer demand. As a result, artificial intelligence tools such as fuzzy logic have been applied to determine the price and the demand. A mathematical programming model has been used to find the optimal profit. Results showed that the dynamic pricing policy under uncertainty is an effective way to coordinate the price and supply chain channel and to improve the profit of the overall system. Fuzzy inferencing and mathematical modeling provided an efficient solution to the problem.

**Significance:** Dynamic pricing provides an effective solution to price and revenue management. The proposed methodology explored a novel approach to determine a dynamic pricing policy under uncertainties.

**Keywords:** Dynamic Pricing, Supply Chain, Fuzzy Logic, Mathematical Programming