

Research Article

Coordination Strategy of the Supply Chain with Consumer Preferences under the “Presale and Spot-Sale” Mode

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In recent years, the market economy has been booming, and the demand of consumers has begun to become diversified. Consumers' preferences for products, the sensitivity of product prices, and other factors can often affect the market demand and also make enterprises realize the importance of consumer preferences. The decision-making model of the supply chain with consumer preference composed of a retailer and a third-party presale platform is established, and we analyze the implementation of a single presale model, a single spot-sale model, and decision-making models under the “presale and sale” mode. The equilibrium strategy of centralized decision and decentralized decision under the mode of “presale and sale” is compared, and the influence of the proportion of informed consumers and the exogenous variables of cross-period discount on supply chain decision is further analyzed. The coordination strategy of the decentralized decision supply chain under the mode of “presale and sale” is put forward, and the coordinated operation among supply chain members is realized. The results show that compared with other sales models, the “presale and spot-sale” model is more beneficial to the profit of the supply chain.

1. Introduction

With the rapid development of the Internet, various emerging sales models are emerging, especially in recent years, the presale mode is more and more popular with the merchants and consumers. Presale refers to a sales mode in which the merchant provides a commodity or service scheme, aggregates consumer orders in advance through the presale platform, and provides goods and/or services to consumers in accordance with the prior agreement after a certain period of time. The presale is usually to pay the deposit first, pay the final payment after the official sale, and then ship the goods. Products are often sold at a discount in the presale period and at full price in the spot period [1, 2]. Consumers determine whether to buy or when to buy by observing the price difference between the two periods.

The “presale and spot-sale” model is often adopted by the retailers when the supply of goods is lower than the demand. Retailers can step up their stocking during the presale period to meet the demand for the presale period to avoid the loss of potential customers. For example, when Xiaomi company launches new products, it is often highly sought after by consumers, resulting in a situation of short supply. On February 20, 2019, the Xiaomi 9 mobile phone was released. At the beginning of the new product launch, the supply was extremely scarce, and Xiaomi took a weekly limited purchase; On March 22, Xiaomi company made a full presale of Xiaomi 9 mobile phone and set the presale period to 3 weeks (http://tech.ifeng.com/a/20190322/45585259_0.shtml). Xiaomi company adopts the same price strategy of presale price, and spot-sale price ([2, 3] also adopt this pricing strategy in their research), and other scholars also adopt

