Wei, Feng; Chen, Hong
Independent sales or bundling? Decisions under different market-dominant powers. (English)
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Summary: Enterprises are aware that bundling strategies can improve profitability in the highly competitive marketplace. This study evaluates an online to offline (O2O) supply chain system made up of a supplier and an e-retailer who can sell two products independently or bundled through online and offline channels, and discuss the influence of pricing strategy and channel choice on profit under different market-dominant powers. Based on a game theory model, we derive an optimal wholesale price for the supplier, an optimal sale price for the e-retailer, and their respective profit. We demonstrate that a Stackelberg leader is more profitable, irrespective of whether independent sales or bundling are chosen. Regardless of who the leader is, the whole supply chain receive equal profit. For a market leader, independent sales or bundling decisions should be made according to market size. Sensitivity analysis show that as the self-price sensitivity coefficient increases, the profit monotonically decreases for both independent sales and bundling; this occur for both the market dominated by the supplier and that dominated by the e-retailer. For independent sales, as the cross-price sensitivity coefficient increases, the profit monotonically increases; for bundled sales, the profit of the game players is not affected.

MSC:
58F15 Hyperbolic structures (expanding maps, Anosov systems, etc.) (MSC2000)
58F17 Geodesic and horocycle flows (MSC2000)
53C35 Differential geometry of symmetric spaces

Keywords:
different market-dominant powers; bundling; multi-product pricing; O2O supply chain; game theory

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References:
[312-320] (2012). doi:10.1016/j.jppe.2012.05.014


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