DISCOUNT PRICING ANALYSIS IN DUAL CHANNEL SUPPLY CHAIN
(Study Case: PT. INDOPROM INDONESIA, Surabaya Branch Office)

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ABSTRACT

Sales activities become adapting along technology development. This adaptation can be seen from the greater number of people are fond of online shopping. Cause the online business is increasing significantly, It seems the big opportunity to generate more revenue by adding sales channel. So, businessman adapt by implementing Dual Channel Supply Chain (DCSC). In DCSC, the sales are not only made through retailer (offline), but also via internet (online). The use of DCSC will enable the company to extend the customer that can’t be reached using store (offline), expand market coverage, control price, and increase profit. Additional sales channel makes businessman have to do some efforts to make the number of selling product stable, one of them is giving discount. Thus, this research will discuss how to optimize discount in DCSC while maximizing profit in PT. Indoprom Indonesia, Surabaya branch office.

To find the optimal solution, the optimization will be performed twice. The first optimization is performed using initial model to find out the optimal offline and online price. The second optimization is done by developing the model to get the optimal discount. Both of these optimization is performed using Quadratic Programming method because the objective function has 2 order decision variables. Furthermore, pricing scheme chosen to be used in this research is Bertrand because the company determines their prices on both channel simultaneously.

The result of this research known that the higher discount given, make the higher offline price dan lower online price. It causes offline profit increasing until the optimum discount value, but it will decrease when the discount exceeds its optimum value. Meanwhile, the higher discount cause the higher online profit. The higher discount also cause the lower DCSC profit.

Key Words: Dual Channel Supply Chain (DCSC), Diskon, Optimasi, Quadratic Programming, Bertrand