

Kanyanat Tethanyawarakool 2015: Market Basket Analysis in Food Retail Store: Case Study of a Royal Project Foundation Shop. Master of Science (Agro-Industrial Technology Management), Major Field: Agro-Industrial Technology Management, Department of Agro-Industrial Technology. Thesis Advisor: Assistant Professor Parthana Parthanadee, Ph.D. 174 pages.

This research presents an analysis of point-of-sales data of a case-study royal project foundation (RPF) shop to study customer purchasing behaviors, buying patterns and the associations between products purchased, in order to propose appropriate marketing cross-selling promotion plans and extract significant associations among products that were purchased in the same transactions. Parameters were used to measure the strength of generated rules and to filter out insignificant rules, so that only important rules were reported. Pattern of association rules was reported in the form of IF-THEN. From the analysis, the highest supporting parameter of association rule among product categories was of fresh vegetables and fresh fruits (IF fresh vegetables THEN fresh fruits), accounting for 8% among all customers who visited the shop, with the total sales of the rule of 563,095 baht per year (3.76% of the annual sales). The association between product category and day with the highest supporting rule (11%) was of fresh vegetables and Saturday (IF fresh vegetables THEN Saturday). The total sales of the rule were 949,130 baht per year or 6.34% of the annual sales. The significant association rule between product category and purchasing period that was most often found was of fresh vegetables and late morning period (IF fresh vegetables THEN late morning period), which accounts for 15%, with the total sales of the rule of 1,271,857 baht per year (8.49% of the annual sales). The association rule within fresh vegetable category which had the highest total sales was that of iceberg lettuce and cos salad (IF iceberg lettuce THEN cos salad). The total sales of the rule were 115,235 baht per year and purchased in the same transactions for 3% of the time. From these study results, appropriate short-, medium- and long-term marketing promotion strategies, which were consistent with customers' purchasing behaviors, were proposed to enhance the case-study RPF shop's revenue.

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