

ABSTRACT

Inventory product classification system is a one of important part in company's inventory controlling decision. One of products that must be classifies is medicine product. Medicine classification method that is usually used is Single-Criteria ABC Inventory Classification method that only uses capital using criteria for classification process. For now, this criteria is not representative again because medicine product is sensitive product for some important criteria (not only capital using). According to the condition above, this research will be design new medicine product classification technique with some criteria (multi-criteria) to get more exactly and representative classification result.

Some researches have been done related with ABC Inventory Multi-Criteria Classification. But, there are some problem related to the research before like unavailable criteria standard and there isn't method that can use quantitative and qualitative criteria. Based on the condition, this research will design a classification method using Analytic Network Process (ANP) method. ANP method is completing method from Analytic Hierarchy Process (AHP) method so the result of criteria scoring can be gets more exactly and representative if compared with result of AHP method.

The major processes in this research are criteria collecting and selecting, network model design and scoring process with pair wise comparison questionnaire. With criteria collecting and selecting process, researcher gets some criteria classification such as demand, number of hits, lead time, price, *keuntungan*, and critically class. From the scoring process, researcher also gets the criteria score. The score are demand (0.278474), number of hits (0.259357), critically class (0.208341), price (0.192261), lead time (0.048880), and *keuntungan* (0.012688). To complete this result, this research also design the criteria scale.

From the research result (criteria and criteria scale with the score), ABC classification mechanism can be design. The major classification processes are product total score calculating and classification process based on Pareto principle (20%-30%-50%) classification unit. To complete result, researcher also tries the research result with using randomly data from pharmacy warehouse division of Santo Boromeus hospital. From trying process, researcher can make inventory control recommendation with different time based policy (suitable with minimum-maximum system) according to the result of ABC Inventory Multi-Criteria classification process.

Keywords: *Analytic Network Process* (ANP), ABC Classification, Medicine Product