ABSTRACT

THE IMPLEMENTATION OF GEOGRAPHIC INFORMATION SYSTEM FOR BRANCH PLACEMENT DECISION SUPPORT SYSTEM OF PT TUNAS DWIPA MATRA BANDAR LAMPUNG USING SIMPLE ADDITIVE WEIGHTING (SAW) METHODS

By

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PT Tunas Dwipa Matra is an official main dealer for Honda motorcycle which has had several branches in Bandar Lampung. To expand the marketing network and to give services to customers, PT Tunas Dwipa Matra could open a new branch. To open a new branch is not always easy, that is why DSS (Decision Support System) is needed to recommend a new branch location. In this research, the method used for decision counting is Simple Additive Weighing (SAW) using 7 criteria (cost, population, distance, road type, dealer, showroom, market) and Geographic Information System (GIS) which are used to present the result of data processed by DSS. DSS and SIG is built based on web, and integrated with android system as a input device for a new branch location. The system is built by using php programming language by implementing Google Maps API and web service technology with JSON (Javascript Object Notation) data format. The test result with Equivalence Partitioning showed that system was meet the user needs. Thus, based on the accuracy of decision test, system is declared to have fulfilled the criteria of new branch recommendation from PT. Tunas Dwipa Matra.

Keyword : DSS, GIS, Android, Web Service, Simple Additive Weighting, Google Maps API, JSON.