

MODEL PREDIKSI KESUKSESAN PRODUK MOBIL DENGAN PENDEKATAN KANO

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ABSTRAK

Rata-rata penjualan produk mobil di Indonesia meningkat 12,83% per tahunnya, sehingga perlu dirumuskan variabel-variabel apa saja yang menjadi pertimbangan konsumen untuk memutuskan dalam membeli produk mobil. Penelitian bertujuan untuk membangun model kesuksesan mobil penumpang pada beberapa segmen dan pada segmen low. Terdapat 9 variabel untuk menyusun model., yaitu Time to Market (X1), Price (X2), Performance (X3), Economical Consumption (X4), Extra Feature (X5), Safety Feature (X6), Aftersales Service (X7), Design (X8), dan Brand Image (X9). Pengolahan data mentah dimulai dengan standardisasi nilai variabel per segmen mobil. Model dibangun dengan nilai Sum of Square Error terkecil dari setiap variabel yang dikategorikan dalam tiga kuadran metode Kano, kemudian disusunlah alternatif-alternatif model. Alternatif model akan diregresikan sehingga diperoleh nilai koefisien determinasi (R²). Model akhir akan diuji dengan validasi silang. Model terbaik dipilih dengan indikator nilai R² tertinggi. Diperoleh hasil R² sebesar 46,28% untuk model mobil penumpang yang terdiri dari beberapa segmen dengan R² validasi sebesar 65,56%. Untuk mobil segmen low, diperoleh R² sebesar 88,55% dengan R² validasi 95,75%.

Kata Kunci : Kano, model prediksi, kesuksesan produk, mobil

SUCCESS PREDICTION MODEL OF CAR BASED ON KANO MODEL APPROACH

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ABSTRACT

Indonesia will develop a national car project, In the other side, Indonesia car market has been dominated by more than 35 foreign car makers. The release of new cars make the competition even stronger. To win the competition, it is important for the national car makers to know what things are considered by Indonesian customers in buying car products. The aim of this research is to build a sales prediction model of passenger car in general segment (scenario 1) and in low-end segment (scenario 2) based on car market share as success indicator and 9 variables as model's builder. The 9 variables are Time to Market (X1), Price (X2), Performance (X3), Economical Consumption (X4), Extra Feature (X5), Safety Feature (X6), Aftersales Service (X7), Design (X8), and Brand Image (X9). Data processing started with counting market share from car sales data. Then, the value market share and independent variables are standardized by average value of each segment. The standardized values are used for building the model. The model built based on minimum value of Sum of Square Error from each independent variable that categorized into 3 Kano's quadrants, so the model alternatives can be built. The alternative models passed regression process to obtain coefficient of determination (R^2) value. The final model will be tested with cross-validation method. Model that has the highest value of R^2 is chosen as the best model. The best model for general segment obtain R^2 value of 46,28% with R^2 validation value of 65,56%. The best model for low-end segment obtain R^2 value of 88,55% with R^2 validation value of 95,75%. In general segment, the variables that can increase product's success are Time to Market (X1), Performance (X3), Safety Feature (X6), and Aftersales Service (X7); whereas in low-end segment are Price (X2), Performance (X3), Extra Feature (X5), Safety Feature (X6).

Keyword : Kano, prediction model, product success, car