PENERAPAN DATA MINING UNTUK MENGKLASIFIKASI PENERIMA DAN BUKAN PENERIMA KARTU IDENTITAS MISKIN (KIM) KELURAHAN SUMURREJO GUNUNGPATI DENGAN METODE NAIVE BAYES CLASSIFIER

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ABSTRAK

Hasil final uji publik kependudukan tahun 2011 mencatat jumlah warga Kelurahan Sumurrejo sebanyak 1559 KK dengan jumlah warga miskin (gakin) sebanyak 974 KK. Sedangkan pada tahun 2013 terdapat kenaikan jumlah penduduk sebanyak 1,8%, dengan total penduduk tahun 2013 adalah 5415 jiwa dari 1578 KK. Untuk gakin Kelurahan Sumurrejo tahun 2013 juga mengalami peningkatan sebanyak 5,45% dengan total gakin 1027 KK. Banyaknya warga miskin membuat pemerintah Kota Semarang menetapkan data gakin dengan cara membuat Kartu Identitas Miskin (KIM) yang merupakan pengganti Surat Keterangan Tidak Mampu (SKTM). Tetapi banyak terjadi masalah dalam pendistribusian kartu KIM tersebut, sebagai contoh di kelurahan Barusari terdapat 482 KK yang berhak mendapat KIM tetapi sampai hari pembagian kartu masih belum ada kejelasan. Untuk menganalisis penerima kartu KIM maka digunakan data mining dengan teknik klasifikasi yang apabila sudah diketahui bisa mengurangi ketidaksinkronan data antara penerima dan bukan penerima kartu KIM. Metode yang digunakan yaitu naive bayes classifier, dan desain penelitian dengan menggunakan CRISP-DM. Data penelitian adalah data warga miskin kelurahan Sumurrejo Kecamatan Gunungpati Kota Semarang tahun 2013 yang dievaluasi menggunakan confusion matrix dan divalidasi dengan teknik split validation. Hasil akurasi tertinggi didapatkan setelah data penelitian dikonversi yaitu 93,06%

Kata Kunci : Kartu Identitas Miskin (KIM), data mining, naive bayes classifier, data mining classification, CRISP-DM

Application of Data Mining for Classifying Recipients and Non Recipients Of Poor Identity Card (KIM) at Sumurrejo Village of Gunungpati using Naive Bayes Classifier Method

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ABSTRACT

Results of the final public test population in 2011 recorded the number of Sumurrejo Village residents as much as 1559 KK and the number of poor families (Gakin) as much as 974 KK. Whereas in 2013 there were population increase as much as 1.8%, with a total population in 2013 was 5415 inhabitants from 1578 families. For gakin Village Sumurrejo in 2013 also increased as much as 5.45% with a total gakin 1027 KK. The number of poor people to make the government of Semarang set of data gakin by making Poor Identity Card (KIM), which is a replacement Certificate Disadvantaged (SKTM). But there are many problems in the distribution of the KIM card, for example, in the Barusari village there are 482 households entitled to receive the distribution of KIM but until the day of card distributed, there is still no clarity. To analyze recipient of KIM card then using data mining classification techniques when they are known to reduce discrepancies in the data between the recipient and not the recipient KIM card. The method used is Naive Bayes classifier, and research design using the CRISP-DM. The research data is data poor village Sumurrejo Gunungpati Subdistrict Semarang City in 2013 were evaluated using a confusion matrix and validated by the validation split technique. The highest accuracy results obtained after research data converted is 93.06%.

Keyword : Poor Identity Card (KIM), data mining, Naive Bayes classifier, data mining classification, CRISP-DM