PENERAPAN METODE *SINGLE EXPONENTIAL SMOOTHING* PADA PERSEDIAAN BAHAN BAKU IKAN PINDANG ASAPAN (STUDI : UMKM IKAN ASAPAN)

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ABSTRAK

Perekonomian di Indonesia saat ini sedang berkembang pesat karena dampak perkembangan Ilmu Pengetahuan dan Teknologi yang semakin canggih, termasuk Kota Jember yang perekonomiannya semakin maju. Hal ini terbukti dengan hadirnya sejumlah perusahaan, baik perusahaan kecil, perusahaan menengah dan bahkan perusahaan besar yang beroperasi dalam usaha jual beli. Salah satunya UMKM Ikan Asapan yang melakukan proses penjualan ikan asapan secara terus menerus. Namun, berdasarkan hasil observasi di lapangan ternyata hasilnya menunjukkan bahwa telah terjadi masalah dalam perencanaan dan pengendalian persediaan bahan baku utama (ikan), yaitu membengkaknya biaya pemesanan ikan.

Single Exponential Smoothing merupakan metode peramalan yang digunakan untuk meramalkan jumlah pemesanan dan penjualan ikan pada masa yang akan datang dengan cara melakukan proses pemulusan *(smoothing),* sehingga menghasilkan data ramalan yang lebih kecil nilai kesalahannya. Hal ini dapat dilihat dari hasil pengujian alpha 0,1 didapatkan nilai MAPE 7,671%, alpha 0,2 senilai 6,815%, alpha 0,3 senilai 5,964%, alpha 0,4 senilai 5,115%, alpha 0,5 senilai 4,264%, alpha 0,6 senilai 3,406%, alpha 0,7 senilai 2,554%, alpha 0,8 senilai 1,706% dan alpha 0,9 senilai 0,852. Dari pengujian dengan nilai alpha berbeda, dapat disimpulkan bahwa semakin besar nilai alpha maka tingkat nilai rata-rata kesalahan (MAPE) akan semakin kecil.

Kata Kunci : Perekonomian, Teknologi, Peramalan, *Single Exponential Smoothing.*

APPLICATION of *SINGLE EXPONENTIAL SMOOTHING* METHOD on SMOKED FISH BRINE SUPPLY

(Study: UMKM SMOKED FISH BRINE)

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ABSTRACT

The economy in Indonesia is growing rapidly due to the development impact of science and technology that is increasingly sophisticated, including Jember, the more advanced economy. This is evidenced by the presence of a number of companies, small companies, medium enterprises and even large companies that operate in the business of buying and selling. One of them is UMKM (micro small and medium enterprises) smoked fish brine who performs the sales of fish continuously. However, based on the outcome of observations in the field, the results showed that there was a problem in planning and controlling major supply of smoked material (fish), namely the price of ordering fish.

Single Exponential Smoothing is a method of forecasting used to predict the number of orders and the sales of fish in the future by conducting a smoothing process, resulting in a less predictive data of its error value. It can be seen from the test results Alpha 0.1 obtained MAPE value 7.671%, alpha 0.2 worth 6.815%, alpha 0.3 worth 5.964%, alpha 0.4 worth 5.115%, alpha 0.5 worth 4.264%, alpha 0.6 worth 3.406%, alpha 0.7 worth 2.554%, alpha 0.8 worth 1.706% and Alpha 0.9 worth 0.852. From testing with different alpha values, it can be concluded that the larger alpha value, the average value level of the error (MAPE) will be smaller.

Keywords : Economy, Technology, Forecasting, Single Exponential Smoothing.