Exponential smoothing forecast

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This method is also known as the moving average. It does well with random variations, but is not reliable when changes occur due to reasons such as seasons (Russell & Taylor 2006, p10). It is more useful for short term forecasting. The naive method forecast is done by projecting the current period's demand as the next period's forecast (Russell & Taylor 2006, p12). Below is the naive method forecast for Great Northwest Outdoor Company based on available data. To forecast demand for each quarter of 2000:

Using the naive method the forecasts for the year 2000 will be; 3rd quarter = 20. 95 and the 4th quarter = 21. Total for the two quarters = 42. 65. It should be noted that the forecast figures have been obtained using a 2 month moving average (Russell & Taylor 2006, p12). Mean Absolute Deviation (MAD) MAD is used to obtain an average of the forecast errors over a period of time (n). The less the MAD the more accurate the forecast. MAD is obtained by; MAD = (? | D t-Ft|)

t = period number D t= demand in period t F t = forecast for period t n = total number of periods | | = absolute value (Russell & Taylor 2006, p21). MAD for seasonally adjusted forecasts = -1. 32 while MAD for exponential smoothing forecast = 1. 73 The two figures have been calculated for the same period of time. Differences between seasonally adjusted forecasts and exponential smoothing forecast. While the seasonally adjusted forecasts factors in data spread over a period of time, the exponential smoothing forecast requires only three values from the current data to come up with a forecast.

This means that the seasonally adjusted forecasts may be more demanding in terms of time and resources (Russell & Taylor 2006, p14). From the MAD it

can be concluded that the seasonally adjusted forecast though more demanding is more accurate. The lower the MAD value the more accurate the forecast. Therefore the seasonally adjusted forecast is recommended as the most suitable forecast method in regard to accuracy (Russell & Taylor 2006, p19).

However the exponential smoothing forecast method can be improved on by factoring in more data that would reflect the shifts in demand spread over a longer period. This is because the exponential smoothing forecast method reacts basically to recent changes. Portfolio 3: Professional Video Management It is important to carry out the concept of EOQ analysis in this case because the proprietor is faced with the challenge of choosing between two seemingly reliable suppliers.

This process would help in the purposes of reducing costs; that is the least cost that needs to be incurred when placing an order (Terspine, 1993). It is important to understand some components of the EOQ. One is the annual usage or the annual demand which is usually given in units. In this case, our annual demand is determined by [(7970+ 8070 + 7950 + 8010) / 4] * 12 = 96, 000 units. This is represented by D. Next is the ordering cost Co which is the summation of the fixed costs incurred each time an order is to be placed (Hamblin et al. 1973).

This cost is never associated with the quantity ordered but rather the particular activities carried out during the process of ordering. In this regard, our Co varies from one supplier to another. For Kony, the cost per order is $40 while for Toshiki the cost is higher at $90. Then we have the carrying cost Ch, also called the holding costs (Piasecki, 2001). As the name suggests

these are costs associated with maintaining the inventory in the premise. In this case, our Ch is estimated to be 30% of the unit cost. Thus, our Co is 1995 * 30% = $ 598. 5 per unit per year.