**Part 1**

**Step 1**

The researchers set out to find an optimal solution (processor efficient using a subset of total features) to the problem of predicting an emerging market ETF’s performance.

From the results published, the researchers conclude that the performance of an emerging market ETF is driven by quantitative factors whereas that of a developed market ETF is driven by more qualitative factors. The MLP method utilised in the study is a highly quantitative method and therefore more suited to the analysis of an emerging market ETF.

**Step 2**

As illustrated in Table 4, the accuracy of the model increases with the number of features up to 5 before steeply decreasing with 6 features.

The results of the study therefore indicate that a subset of 5 features is the optimal number of features to employ in the MLP model described.

The most useful features in predicting the performance of each ETF fund differs by fund (presumably due to sectoral focus of each fund) are:

|  |  |  |
| --- | --- | --- |
| Archer’s on balance volume | AOBV\_LR\_2 | Volume |
| Bollinger band percent | BBP\_5\_2.0 |  |
| Balance of power | BOP | Momentum |
| Correlation trend indicator | CTI\_12 | Momentum |
| Decreasing | DEC\_1 | Cycle |
| Even better sinewave | EBSW\_40\_10 |  |
| Increasing | INC\_1 |  |
|  | J\_9\_3 |  |
|  | K\_9\_3 |  |
|  | ZS\_30 |  |
| Stochastic Oscillator | STOCHk\_14\_3\_3 | Momentum |
| Williams % R | WILLR\_14 | Momentum |
|  | TTM\_TRND\_6 |  |
| Stochastic relative strength index | STOCHRSIk\_14\_14\_3\_3 | Momentum |