CHAPTER – 8

DISCRIMINATING BUYBACK FIRMS FROM NON BUYBACK FIRMS
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DISCRIMINATING BUYBACK FIRMS FROM NON BUYBACK FIRMS

Not all the companies prefer to go for buyback. Besides studying the motivations, it is very much necessary to learn the basic characteristics of firms going for such possible decisions. How do they differ from non buyback firms, financially is another pertinent problem on the radar of the present study.

8.1 DEVELOPMENT OF DISCRIMINANT MODEL

In order to identify the discriminant variables between buyback and non buyback firms, the discriminant model as discussed under section 3.5.5 has been used with 1 categorical dependent variable and 12 independent variables. The various variables so identified and coded for building up the discriminant model are as per Table 8.1

<table>
<thead>
<tr>
<th>S. NO.</th>
<th>DISCRIMINATING CRITERIA</th>
<th>VARIABLES</th>
<th>VARIABLE CODES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Capital Structure</td>
<td>Total Debt to Capital Employed</td>
<td>TDCE</td>
</tr>
<tr>
<td>2</td>
<td>Capital Structure</td>
<td>Total Debt to Total Assets</td>
<td>TDTA</td>
</tr>
<tr>
<td>3</td>
<td>Liquidity</td>
<td>Current Ratio</td>
<td>CR</td>
</tr>
<tr>
<td>4</td>
<td>Liquidity</td>
<td>Quick Ratio</td>
<td>QR</td>
</tr>
<tr>
<td>5</td>
<td>Liquidity</td>
<td>Cash to Total Assets</td>
<td>CTA</td>
</tr>
<tr>
<td>6</td>
<td>Market Expectations</td>
<td>Book value to Market Value ratio</td>
<td>BVMV</td>
</tr>
<tr>
<td>7</td>
<td>Market Expectations</td>
<td>Dividend Payout Ratio</td>
<td>DPR</td>
</tr>
<tr>
<td>8</td>
<td>Scale of Operations</td>
<td>Total Common Shares Outstanding</td>
<td>TCSO</td>
</tr>
<tr>
<td>9</td>
<td>Scale of Operations</td>
<td>Total Assets</td>
<td>TA</td>
</tr>
<tr>
<td>10</td>
<td>Profitability</td>
<td>Return on Total Assets</td>
<td>ROTA</td>
</tr>
<tr>
<td>11</td>
<td>Profitability</td>
<td>Growth in Earnings Per Share</td>
<td>GEPS</td>
</tr>
<tr>
<td>12</td>
<td>Profitability</td>
<td>Growth in Total Revenue</td>
<td>GR</td>
</tr>
</tbody>
</table>
Before carrying out the final analysis, it is significant to go through four stages in development of discriminant model. These stages as discussed under chapter 3 of “Research Methodology” include:

8.1.1 CHECKING THE NORMALITY OF INDEPENDENT VARIABLES

Although Discriminant analysis requires checking of normality at multivariate level, yet due to lack of presence of any such test, the normality tests have been applied at individual variables level. The normality of independent variables has been checked using the most commonly used Kolmogorov-Smirnov test as the sample size is more than 50 and the results have been confirmed using Chi Square test. However, transformations have been performed on variables which have been failing the normality test in original form. The values of KOLMOGOROV-SMIRNOV (K-S) along with significance value for the variable in original form and after necessary suitable transformation have been shown under Table 8.2.

### TABLE 8.2

<table>
<thead>
<tr>
<th>S. NO.</th>
<th>VARIABLE CODE</th>
<th>ORIGINAL FORM</th>
<th>TRANSFORMATION UNDERTAKEN</th>
<th>AFTER TRANSFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>K-S VALUE</td>
<td>PROBABILITY</td>
<td>K-S VALUE</td>
</tr>
<tr>
<td>1</td>
<td>TDCE</td>
<td>0.149</td>
<td>0.000</td>
<td>Inverse</td>
</tr>
<tr>
<td>2</td>
<td>TDTA</td>
<td>0.224</td>
<td>0.000</td>
<td>Inverse</td>
</tr>
<tr>
<td>3</td>
<td>CR</td>
<td>0.067</td>
<td>0.045</td>
<td>None</td>
</tr>
<tr>
<td>4</td>
<td>QR</td>
<td>0.230</td>
<td>0.000</td>
<td>Inverse</td>
</tr>
<tr>
<td>5</td>
<td>BVMV</td>
<td>0.062</td>
<td>0.184</td>
<td>None</td>
</tr>
<tr>
<td>6</td>
<td>DPR</td>
<td>0.344</td>
<td>0.000</td>
<td>Inverse</td>
</tr>
<tr>
<td>7</td>
<td>TCSO</td>
<td>0.241</td>
<td>0.000</td>
<td>Logarithm</td>
</tr>
<tr>
<td>8</td>
<td>TA</td>
<td>0.310</td>
<td>0.000</td>
<td>Logarithm</td>
</tr>
<tr>
<td>9</td>
<td>GEPS</td>
<td>0.052</td>
<td>0.200</td>
<td>None</td>
</tr>
<tr>
<td>10</td>
<td>GR</td>
<td>0.063</td>
<td>0.087</td>
<td>None</td>
</tr>
</tbody>
</table>

Null Hypothesis: The individual variable is assumed to follow normal distribution.
In case of KOLMOGOROV-SMIRNOV (K-S) test, the null hypothesis of the individual variable following normal distribution being tested at 1% level of significance reveals variables TDCE, TDTA, QR, DPR, TCSO and TR which have undergone various transformations, whereas variables CR, BVMV, GEPS and GR have shown following normal distribution in original form only. Thus, after transformations, all the variables have shown probability values so as to accept the null hypothesis. However, two more variables, i.e. CTA and ROTA have been dropped from analysis as all attempts to normalise them failed. The Discriminant model was developed and run initially with original values of variables and was rerun with transformed values and a clear cut improvement in classification accuracy was noted.

8.1.2 EVALUATING THE HOMOSCEDASTICITY OF DISCRIMINANT MODEL

Since there are multiple variables involved in development of the model, Box’s M Test has been used to measure the presence of homoscedasticity or equal variances among groups of independent variables across the two categories of dependent variable. As per Table 8.3, F value of Box’s M test stands at 1.432. This value being significant enough at 1% level of significance accepts the null hypothesis of equality of covariance matrices across groups or confirms the presence of homoscedasticity. Thus, none of the variables undergo any further transformation to ensure homoscedasticity. This statistic is also used for the purpose of determining whether to use covariance matrices for generating the classification matrix. Certainly, with the two groups showing signs of equal covariance, we can certainly go ahead with development of classification matrix to assess validity.

<table>
<thead>
<tr>
<th>TABLE 8.3</th>
<th>TEST OF HOMOSCEDASTICITY/ BOX’S TEST OF EQUALITY OF COVARIANCE MATRICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEASURE</td>
<td>VALUE</td>
</tr>
<tr>
<td>Box’s M</td>
<td>87.143</td>
</tr>
<tr>
<td>F Approx</td>
<td>1.432</td>
</tr>
<tr>
<td>Significance</td>
<td>0.020*</td>
</tr>
</tbody>
</table>

*Null Hypothesis cannot be rejected at 1% level of significance
Null Hypothesis : There is equal covariance among independent variables across two groups of dependent variable
8.1.3 IDENTIFYING NON LINEAR RELATIONSHIP AMONG VARIABLES

The best way to judge the presence of linear relationship between any two set of variables is Scatter Plots. Since in present case, the dependent variable is categorical in nature, therefore, the scatter plots have to be drawn among independent variables by taking a couple of them at one time. From Figure 8.1, the scatter plots matrix drawn for all the independent variables doesn’t show any non liner relationship present among any two variables. Thus, none of the variables has undergone any further transformation to ensure linearity. The diagonal shapes depict the normal distribution being followed by the respective variables.

**FIGURE 8.1**

**SCATTERPLOT MATRIX FOR VARIOUS INDEPENDENT VARIABLES**

8.1.4 TEST OF EQUALITY OF GROUP MEANS

From the output obtained as per Table 8.4, the descriptive means are obtained for all the variables across the two categories of dependent variable. Although having a differential mean for the two categories is an important condition, yet the results are not so sensitive to the significance of inequality of group means of different variables. Thus, they are tested generally at 5% to 10% level of significance rather than at 1%
level. However, the values represent a lot in terms of the differentiating power of individual variables as discriminators across various groups. Thus, it can be observed from Table 8.4 that two of the variables QR and BVMV have significant F values at 10% level, thereby, providing sufficient differentiation for analysis. However, there is little correspondence between the significance of Wilks’ Lambda and the classification accuracy of discriminant function.

**TABLE 8.4**

**TEST FOR EQUALITY OF GROUP MEANS ACROSS BUYBACK AND NON BUYBACK FIRMS**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>INDEPENDENT VARIABLES</th>
<th>WILKS’ LAMBDA</th>
<th>F RATIO</th>
<th>PROBABILITY VALUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TDCE</td>
<td>0.983</td>
<td>2.143</td>
<td>0.146</td>
</tr>
<tr>
<td>2</td>
<td>TDTA</td>
<td>0.995</td>
<td>0.646</td>
<td>0.423</td>
</tr>
<tr>
<td>3</td>
<td>CR</td>
<td>0.997</td>
<td>0.350</td>
<td>0.555</td>
</tr>
<tr>
<td>4</td>
<td>QR</td>
<td>0.977</td>
<td>3.009</td>
<td>0.085*</td>
</tr>
<tr>
<td>5</td>
<td>BVMV</td>
<td>0.978</td>
<td>2.794</td>
<td>0.097*</td>
</tr>
<tr>
<td>6</td>
<td>DPR</td>
<td>1.000</td>
<td>0.002</td>
<td>0.964</td>
</tr>
<tr>
<td>7</td>
<td>TCSO</td>
<td>1.000</td>
<td>0.014</td>
<td>0.907</td>
</tr>
<tr>
<td>8</td>
<td>TA</td>
<td>0.997</td>
<td>0.336</td>
<td>0.563</td>
</tr>
<tr>
<td>9</td>
<td>GEPS</td>
<td>1.000</td>
<td>0.025</td>
<td>0.876</td>
</tr>
<tr>
<td>10</td>
<td>GR</td>
<td>0.992</td>
<td>0.971</td>
<td>0.326</td>
</tr>
</tbody>
</table>

*Significant difference at 10 % Level

Null Hypothesis: There is no difference between means of independent variables across two groups of dependent variable

### 8.2 ESTIMATION OF DISCRIMINANT FUNCTION

The number of discriminant functions obtained depends upon the number of categories of dependent variables used. Generally, it provides n-1 discriminant functions, where n is the number of categories of dependent variables under consideration. In case of dependent variable having only two categories i.e. Buyback and Non-buyback, there will be only one discriminant function. The ultimate objective of discriminant model developed as above is to obtain a discriminant function showing the discriminant coefficients with respect to various independent variables. The discriminant coefficients so obtained (Table 8.5) denote the relative impact of each independent variable on dependent variable. The coefficients have been standardized by SPSS and thus can be used directly for comparison among them.
Looking at the values and ignoring the signs, QR has the biggest coefficient with a value of 1.099 followed by BVMV with 0.553, which is followed by TA with 0.453, TDCE with 0.543, GR with 0.393 and TDTA with 0.391. The coefficients of other variables are relatively marginal in values. Thus, most important factor which influences the value of discriminant function is QR which is an indicator of availability of liquid assets with the company. This is in line with the “free cash flow hypothesis as propounded under objective 1 earlier. Following this, BVMV which supports undervaluation hypothesis and enjoys a substantial negative relationship with discriminant function is the second most discriminator. Size of the company as measured via value of TA or Total Assets emerges as the third dominating discriminator. The level of debt holding with respect to total capital represented by TDCE and level of growth in total revenue in the past indicated by GR acquire fourth and fifth place respectively. The variable indicating level of total assets being financed through debt portion of capital i.e. TDTA is the sixth in the series in terms of rankings as per influencing power to discriminate.

**TABLE 8.5**

**STANDARDISED CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS**

<table>
<thead>
<tr>
<th>INDEPENDENT VARIABLES</th>
<th>STANDARDISED CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDCE</td>
<td>B_1 0.455</td>
</tr>
<tr>
<td>TDTA</td>
<td>B_2 0.391</td>
</tr>
<tr>
<td>CR</td>
<td>B_3 0.370</td>
</tr>
<tr>
<td>QR</td>
<td>B_4 1.099</td>
</tr>
<tr>
<td>BVMV</td>
<td>B_5 0.553</td>
</tr>
<tr>
<td>DPR</td>
<td>B_6 -0.097</td>
</tr>
<tr>
<td>TCSO</td>
<td>B_7 -0.015</td>
</tr>
<tr>
<td>TA</td>
<td>B_8 0.543</td>
</tr>
<tr>
<td>GEPS</td>
<td>B_9 0.256</td>
</tr>
<tr>
<td>GR</td>
<td>B_{10} -0.393</td>
</tr>
</tbody>
</table>

**TABLE 8.6**

**UNSTANDARDISED CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS**
Thus, the equation as enumerated earlier is now expressed as following equation by incorporating the unstandardised discriminant coefficients as below:-

\[
D = -5.352 + 2.258 \times TDCE + 2.244 \times TDTA + 1.961 \times CR + 6.603 \times QR - 2.610 \times BVMV - 0.090 \times DPR - 0.029 \times TCSO + 0.849TA + 0.051GEPS - 3.830GR
\]

8.3 ASSESSING OVERALL ACCURACY OF DISCRIMINATION FUNCTION

As there are two variables QR and TDTA which have reported a significant difference in mean values across buyback and non buyback companies, the overall relevance of the model needs to be evaluated using suitable measure. Wilks’ Lambda is a statistic included to measure the level of relationship between dependent variable and all the independent variables. It basically measures the proportion of total variance in the discriminant scores which is not explained by the difference between groups. As per Table 8.7, 87.7% of the variance is not explained by the difference between groups. This value of Wilks’ Lambda is significant at 10 % level of significance.

From Table 8.7, the information about Eigenvalues is also available, but it is not as important to us as the statistical test of Wilks' lambda. Eigenvalues give us
information about the effectiveness of the discriminant functions. The size of the
eigenvalue is helpful for measuring the spread of the group centroids in the
 corresponding dimension of the multivariate discriminant space. Larger eigenvalues
indicate that the discriminant function is more useful in distinguishing between the
groups. Along with this, the canonical correlation coefficient measures the level of
association between discriminant score and the set of independent variables. Eigenvalue
with a value of 0.350 yields 12.25% degree of association between
 derived discriminant score and the set of independent variables. Although the value of
correlation seems low, yet it has no effect on the classification accuracy results of the
discriminant model.

**TABLE 8.7**
**SUMMARY OF CANONICAL DISCRIMINANT FUNCTION**

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>EIGENVALUE</th>
<th>% OF VARIANCE</th>
<th>CANONICAL CORRELATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.140</td>
<td>100.0</td>
<td>0.350</td>
</tr>
</tbody>
</table>

**WILKS’ LAMBDA**

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>WILK’S LAMBDA</th>
<th>CHI SQUARE</th>
<th>SIGNIFICANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.877</td>
<td>15.826</td>
<td>0.095*</td>
</tr>
</tbody>
</table>

*Significant at 10% Level of Significance

Another way of interpreting the relative importance of the predictor variables
through discriminant function is by calculating the discriminant loadings. Discriminant
loadings calculate the linear correlation between each independent
variable and the discriminant Z score for each discriminant function. The decision to
include an independent variable in a particular discriminant function is decided on the
basis of discriminant loadings score only. The cut off rule is to include a particular
independent variable whose loadings score is 0.3 and above. In the present study, it is
a case of two factor discriminant analysis. Hence, there is only one discriminant
function. As observed from Table 8.8, the three variables QR, BVMV and TA
possessing discriminant loadings above 0.3 are selected to be part of the sole
discriminant function 1. Discriminant loadings are also used to identify the important
variables in terms of their influence/correlation with discriminant score. Here, the
loadings are arranged in decreasing order of magnitude. The maximum value of QR
identifies it as the most influencing variable and also possessing a positive correlation
with discriminant score. It is followed by and TA with positive signs imparting a positive correlation effect with discriminant score.

TABLE 8.8
STRUCTURE MATRIX OF INDEPENDENT VARIABLES

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>DISCRIMINANT LOADINGS OF FUNCTION1</th>
</tr>
</thead>
<tbody>
<tr>
<td>QR</td>
<td>0.413</td>
</tr>
<tr>
<td>BVMV</td>
<td>0.398</td>
</tr>
<tr>
<td>TA</td>
<td>0.349</td>
</tr>
<tr>
<td>GR</td>
<td>0.235</td>
</tr>
<tr>
<td>TDCE</td>
<td>0.191</td>
</tr>
</tbody>
</table>

By putting the values of discriminant coefficients and the corresponding values of independent variables as noted from the estimation sample, the mean values of discriminant score so calculated are classified as centroids. Thus, a separate centroid is calculated for every category of dependent variable. As observed from Table 8.9, the centroids for buyback group and non buyback group are 0.377 and -0.365 respectively which makes them opposite to each other. On the basis of centroids, the optimal cutting score value can also be calculated by using a suitable equation. The type of equation to be used depends upon whether prior probabilities are determined as equal or as ratio of actual group sizes in estimation sample. In the present study, since actual group sizes were used as prior probabilities, the respective number of units for non buyback companies in estimation sample is attached to centroids of buyback units and similarly the respective number of units for buyback companies is attached to centroids of non buyback units to calculate the optimal cutting score.

TABLE 8.9
FUNCTIONS AT GROUP CENTROIDS

<table>
<thead>
<tr>
<th>CATEGORIES OF DEPENDENT VARIABLE</th>
<th>FUNCTION 1 VALUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>BB</td>
<td>0.377</td>
</tr>
<tr>
<td>NBB</td>
<td>-0.365</td>
</tr>
</tbody>
</table>

\[ Z_{CS} = \frac{N_A Z_B + N_B Z}{N_A + N_B} \]

Where,

\[ Z_{CS} = \text{Optimal Cutting Score between Group A and B} \]
\[ N_A = \text{Number of Observations in Group A} \]
\[ N_B = \text{Number of Observations in Group B} \]
\[ Z_A = \text{Centroid for Group A} \]
\[ Z_B = \text{Centroid for Group B} \]

Thus, the above equation yields an optimal cutting score of 0.0118. This means that any sample unit which is having discriminant score above 0.0118 will be classified into Group A or buyback group precisely. On the other hand, where the discriminant score is below 0.0118, it will be put under group B or classified as non-buyback company. This score is also used to classify the units as included in the holdout sample of remaining 54 units.

### 8.4 ASSESSING VALIDITY OF DISCRIMINANT MODEL

The litmus test for a discriminant model is the ultimate result in the form of classification accuracy results and the corresponding hit ratio. Under Table 8.9, the classification results and the hit ratio has been calculated for both estimation sample as well as holdout sample. For estimation sample, 65.1% of the buyback cases have been correctly classified by using the discriminant scores obtained through discriminant function. Similarly, 73.8% of non buyback companies have been rightly classified. This gives an overall hit ratio of 69.53% for the estimation sample units.

#### TABLE 8.10
**CLASSIFICATION ACCURACY RESULTS**

<table>
<thead>
<tr>
<th>Cases Selected/ Estimation Sample</th>
<th>Original Count</th>
<th>DV</th>
<th>PREDICTED GROUP MEMBERSHIP</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cases Not Selected/ Holdout Sample</td>
<td>Original Count</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>%</td>
<td></td>
<td>Buyback</td>
<td>65.1%</td>
<td>34.9%</td>
</tr>
<tr>
<td>Non Buyback</td>
<td>26.2%</td>
<td>73.8%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>%</td>
<td></td>
<td>Buyback</td>
<td>19</td>
<td>9</td>
</tr>
<tr>
<td>Non Buyback</td>
<td>10</td>
<td>16</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>%</td>
<td></td>
<td>Buyback</td>
<td>38.5%</td>
<td>61.5%</td>
</tr>
<tr>
<td>Non Buyback</td>
<td>69.53%</td>
<td>30.47%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>A.</td>
<td>69.53% of selected cases correctly classified for estimation sample</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.</td>
<td>64.81% of unselected cases correctly classified for holdout sample</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Coming over to the holdout sample, the hit ratio is 67.9% for buyback units and 61.5% for non buyback units generating an overall hit ratio of 64.81%. Whether these hit ratios are significant enough to validate the model is a question to be
answered by using some suitable criterion. Using proportional chance criteria for assessing the model fit, it is calculated by summing the squared proportion each group represents of the total sample. As per values given in Table 8.11, its value comes to be 0.5012 or 50.12%. Thus, according to proportional chance criteria, hit ratio should be at least 25% higher than the respective percentage which comes out to be 62.65%. For the second criterion, i.e. maximum chance criterion, the prior probability of 0.508 of non buyback dependent variable depicted under Table 8.10 is used as the base criteria and this value when multiplied by 1.25 reveals a figure of 0.635 or 63.5%. Thus, looking at Table 8.9, both the proportional chance criteria and maximum chance criteria stand fulfilled for both estimation samples as well as for holdout sample as their overall hit ratios i.e. 69.53% and 64.81% are higher than the required parameter values.

### TABLE 8.11
**PRIOR PROBABILITIES FOR GROUPS**

<table>
<thead>
<tr>
<th>DEPENDENT VARIABLES</th>
<th>PRIOR PROBABILITIES</th>
<th>CASES USED IN ANALYSIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BB</td>
<td>0.492</td>
<td>63</td>
</tr>
<tr>
<td>NBB</td>
<td>0.508</td>
<td>65</td>
</tr>
<tr>
<td>Total</td>
<td>1.000</td>
<td>128</td>
</tr>
</tbody>
</table>

### TABLE 8.12
**CALCULATION OF PRESS’s Q STATISTIC**

<table>
<thead>
<tr>
<th>VARIABLE CODE</th>
<th>VARIABLE REPRESENTATION</th>
<th>QUANTITATIVE VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Number of Total Sample Units</td>
<td>192</td>
</tr>
<tr>
<td>N</td>
<td>Number of Observations Correctly Classified</td>
<td>124</td>
</tr>
<tr>
<td>K</td>
<td>Number of Groups of Dependent Variable</td>
<td>2</td>
</tr>
<tr>
<td>PRESS’s Q Statistic</td>
<td>$[192-(124 \times 2)]^2$ 192 (2-1)</td>
<td>16.33</td>
</tr>
<tr>
<td>Chi Square Statistic</td>
<td>At df=1 @ 1% Level of Confidence</td>
<td>6.63</td>
</tr>
</tbody>
</table>
Third measure used for establishing the model validity is PRESS’s Q which has been calculated as per Table 8.12. The table clearly show PRESS’s Q value is greater than Chi Square statistic, thereby proving statistically that the classification matrix results stand better than any of the chance criterion.

8.5 SUMMARY OF RESULTS

TABLE 8.13
SUMMARY OF RESULTS FOR ACCEPTANCE/REJECTION OF NULL HYPOTHESIS RELATED TO OBJECTIVE 5

<table>
<thead>
<tr>
<th>FINANCIAL VARIABLE (S)</th>
<th>RESEARCH HYPOTHESIS</th>
<th>RESEARCH HYPOTHESIS STATUS</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>b₁, b₂……b₁₀</td>
<td>b₁, b₂……b₁₀≠0</td>
<td>Hypothesis Accepted</td>
<td>b₄, b₅ and b₈ are significant discriminators</td>
</tr>
</tbody>
</table>

To conclude, it is believed that presence of specific financial conditions persuade firms to take a decision to buyback their own shares. Firms undergoing buyback adopt a unique strategy for restructuring their capital structure. In order to classify them differently vis-a-vis non buyback firms, most commonly used financial parameters were adopted. A discriminant analysis model was developed to identify and select the most influencing factors. The results obtained by applying discriminant analysis are significant enough to distinguish between two types of organisations. Out of various variables considered, Quick Assets Ratio (QR), Book Value to Market Value (BVMV) and Total Assets (TA) (due to high discriminant coefficients and high discriminant loadings) have been found to be the most influencing variables in distinguishing buyback firms from non buyback ones. Interpreting from the signs of discriminant coefficients, these firms differ from each other in terms of possession of amount of Quick Assets, Ratio of Book Value to Market Price and holding of Total Assets. It may thus be stated that buyback firms have high liquid assets, high book value to market price ratio and higher level of total assets (big in size). Hence, the model developed to distinguish the two categories of firms is valid enough to be used for the purpose of identifying the possibility of going for buyback decision on the basis of variables established under the study.