CHAPTER – VII

STEP UP REGRESSION EQUATIONS
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STEP-UP REGRESSION EQUATIONS

In order to examine conjoint effect of psychological variables such as personality–neuroticism, personality–extraversion, intelligence and mental health and social variables such as socio-economic status and modernization on life satisfaction among school teachers of government and private schools, the techniques of multiple regression and step-wise regression analysis were employed.

Multiple regression analysis is defined as a method of analysing, collecting and individual contribution of two or more explanatory variables to the variation in the dependent variable. Step-up regression equations were set up by adding one explanatory variable to the previous, one at a time with the criterion measure of life satisfaction and examined for their efficacy in predicting life satisfaction.

There are two categories of independent variables i.e., psycho variables (personality, intelligence and mental health) and social variables (socio-economic status and modernization). Therefore, two different sets of equations were developed, one for psycho variables and the other for social variables.

The following hypotheses were tested with the help of regression analysis:

15(a) Significant variance towards life satisfaction among government and private school teachers would be contributed by major psycho factors such as personality, intelligence and mental health.

(b) Significant variance towards high level of life satisfaction among government and private school teachers would be contributed by major psycho factors such as personality, intelligence and mental health.

(c) Significant variance towards average level of life satisfaction among government and private school teachers would be contributed by major psycho factors such as personality, intelligence and mental health.

(d) Significant variance towards low level of life satisfaction among government and private school teachers would be contributed by major
psycho factors such as personality, intelligence and mental health.

16(a) Significant variance towards life satisfaction among government and private school teachers would be contributed by major social factors such as socio-economic status and modernization.

(b) Significant variance towards high level of life satisfaction among government and private school teachers would be contributed by major social factors such as socio-economic status and modernization.

(c) Significant variance towards average level of life satisfaction among government and private school teachers would be contributed by major social factors such as socio-economic status and modernization.

(d) Significant variance towards low level of life satisfaction among government and private school teachers would be contributed by major social factors such as socio-economic status and modernization.

**HYPOTHESIS 15(a)**

To test hypothesis 15(a), which states, “Significant variance towards life satisfaction among government and private school teachers would be contributed by major psycho factors such as personality, intelligence and mental health of life satisfaction” the values of multiple R were calculated by the description of psycho factors used in regression analysis which has been given in Table 7.15. The results of regression analysis have been presented in Table 7.15.1.

**Table 7.15**

Description of psycho variables used in regression analysis.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Type of Variable</th>
<th>Name of Variable</th>
<th>Symbol of Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Dependent</td>
<td>Life Satisfaction</td>
<td>Y</td>
</tr>
<tr>
<td>2.</td>
<td>Independent</td>
<td>Personality-Extraversion</td>
<td>$x_1$</td>
</tr>
<tr>
<td>3.</td>
<td>Independent</td>
<td>Personality-Neuroticism</td>
<td>$x_2$</td>
</tr>
<tr>
<td>4.</td>
<td>Independent</td>
<td>Intelligence</td>
<td>$x_3$</td>
</tr>
<tr>
<td>5.</td>
<td>Independent</td>
<td>Mental Health</td>
<td>$x_4$</td>
</tr>
</tbody>
</table>
## RESULTS

### Table 7.15.1
Psycho factors affecting life satisfaction among primary school teachers

<table>
<thead>
<tr>
<th>Variables</th>
<th>$R^2$</th>
<th>$R$</th>
<th>% Variance</th>
<th>F-Ratio</th>
<th>Step-Regression Equations</th>
</tr>
</thead>
<tbody>
<tr>
<td>$Y$. $X_1$</td>
<td>0.9137**</td>
<td>0.9559**</td>
<td>91.37</td>
<td>384.62</td>
<td>$Y=+54.79^<em>+1.96^</em> (x_1)$</td>
</tr>
<tr>
<td>$Y$. $X_1$. $X_2$</td>
<td>0.9218**</td>
<td>0.9601**</td>
<td>92.18</td>
<td>230.60</td>
<td>$Y=52.81^<em>+2.02^</em> (x_1) + 1.96^* (x_2)$</td>
</tr>
<tr>
<td>$Y$. $X_1$. $X_2$. $X_3$</td>
<td>0.9431**</td>
<td>0.9711**</td>
<td>94.31</td>
<td>187.99</td>
<td>$Y=45.49^<em>+1.72^</em> (x_1) + 1.87^* (x_2) + 2.83^* (x_3)$</td>
</tr>
<tr>
<td>$Y$. $X_1$. $X_2$. $X_3$. $X_4$</td>
<td>0.9567**</td>
<td>0.9781**</td>
<td>95.67</td>
<td>179.64</td>
<td>$Y=46.06^<em>+1.96^</em> (x_1) + 0.90^* (x_2) + 2.9(x_3)^<em>+3.12^</em> (x_4)$</td>
</tr>
</tbody>
</table>

* Significant at 0.05 level
** Significant at 0.01 level

### DISCUSSION OF RESULTS

The multiple $R$ values were found to be increasing with addition of one variable to the previously existed in the regression equation. The multiple $R$ values came to be ranging from 0.9559 to 0.9781, all significant at 0.05% level of probability. The magnitude of coefficients of multiple determinations ranged between 0.9137 with one variable to 0.9567 with all the independent variables. This trend showed that addition of each variable contributed towards increased prediction of life satisfaction on the basis of independent psycho variables such as personality extraversion, personality neuroticism, intelligence and mental health. The calculated F-values revealed that each independent variable contributed significantly in predicting the variation in life satisfaction.

In the prior step-up equation, the effect of $x_1$ variable, personality extraversion was observed to be of the order of 0.9137, significant of 1% level which revealed that personality extraversion explained 91.37 percent of the variation in life satisfaction of school teachers.

In the second step-up equation, the variable $x_2$, i.e., personality neuroticism was added. The coefficient of multiple determination came to be 0.9218, again...
significant at 0.01 level. There is an addition in the previous $R^2$ value, i.e., from 0.9137 to 0.9218. This increase indicated that the contribution of personality–neuroticism towards life satisfaction among school teachers was found to be significant.

In the third step-up, the variable $x_i$, intelligence, was added to the previous step-up equation. $R^2$ value was revised from 0.9218 to 0.9431 which was found to be significant at 0.01 level. The contribution of intelligence towards life satisfaction was found to be significant. The regression coefficient of independent variable of extraversion was not found significant. There was decrease in extraversion value from 2.02 to 1.72 when intelligence was added to the previous step-up equation.

The final step-up equation regarding fourth variable, i.e. mental health was included to see the combined effect of all the four independent variables under study on life satisfaction among school teachers. The value of $R^2$ got revised from 0.9431 to 0.9567, which found to be significant at level at .01 level. Thus, the contribution of all the three independent variables towards life satisfaction among school teachers was significant but the regression coefficient of neuroticism dimension of personality was not a significant contributor.

The regression coefficients of independent variables in each equation except personality neuroticism came to be significant which indicated that an increase of one unit in personality extraversion, intelligence and mental health would lead to increase of 1.96, 2.9 and 3.12 units respectively in life satisfaction of school teachers but the personality neuroticism declined from 1.87 to 0.90 which indicated that the contribution of personality neuroticism towards life satisfaction among school teachers decreased with the addition of mental health. From the results of multi-variable analysis, it can be concluded that life satisfaction among school teachers was significantly contributed by personality, intelligence and mental health, i.e., about 95.67%.

Thus, hypothesis 15(a), which states, “Significant variance towards life satisfaction among government and private school teachers would be contributed by major psycho factors such as personality, intelligence and mental health” has been partially accepted.
HYPOTHESIS 15(b)

To test hypothesis 15(a), which states, “Significant variance towards high level of life satisfaction among government and private school teachers would be contributed by major psycho factors such as personality, intelligence and mental health” stands accepted. The step-up regression analysis was done and the results of the analysis are presented in Table 7.15.2.

RESULTS

Table 7.15.2
Psycho factors affecting life satisfaction among teachers having high level of life satisfaction

<table>
<thead>
<tr>
<th>Variables</th>
<th>R²</th>
<th>R</th>
<th>% Variance</th>
<th>F-Ratio</th>
<th>Step-Regression Equations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y.x</td>
<td>0.8176**</td>
<td>0.9042**</td>
<td>81.76</td>
<td>330.38</td>
<td>Y=57.58+1.15^x (x)</td>
</tr>
<tr>
<td>Y.x.x</td>
<td>0.8266**</td>
<td>0.9092**</td>
<td>82.66</td>
<td>136.86</td>
<td>Y=57.02+1.606 (x1)+0.786 (x)</td>
</tr>
<tr>
<td>Y.x.x.x</td>
<td>0.8894**</td>
<td>0.9431**</td>
<td>88.94</td>
<td>176.60</td>
<td>Y=53.61+1.16 (x1)+1.28 (x2) +1.97 (x3)</td>
</tr>
<tr>
<td>Y.x.x.x.x</td>
<td>0.9122**</td>
<td>0.9551**</td>
<td>91.22</td>
<td>150.67</td>
<td>Y=52.68+1.76 (x1)+1.02 (x2) +1.96 (x3) +0.086 (x4)</td>
</tr>
</tbody>
</table>

* Significant at 0.05 level
** Significant at 0.01 level

DISCUSSION OF RESULTS

The values of multiple R were observed to be increasing with each addition of a variable in the regression equation. These ranged between 0.9042 with one variable to 0.9551 with four variables. This trend showed that addition of each variable contributed towards an increased prediction of high level of life satisfaction among school teachers on the basis of these variables under study.

In the first trial, the independent variable x1, i.e., personality extraversion was regressed against high level of life satisfaction where R² value worked at 0.8176, significant at 0.01 level. But the coefficient of independent variable, i.e. personality extraversion in the first run equation was not significant indicating that...
the personality extraversion has not contributed to the variance in high level of life satisfaction significantly.

In the second step-up equation, the variable $x_2$, personality neuroticism, was added to the first step-up equation which raised the value of $R^2$ to 0.8266 from 0.8176. Thus both the aspects of personality contributed 82.66% towards variation in high level of life satisfaction among school teachers.

Another variable symbolized as $x_2$ and named as intelligence was added to the second trial equation. With the inclusion of intelligence variable, the value of $R^2$ came to be 0.8894, which is significant at one percent level again. The value of personality extraversion was decreased from 1.606 to 1.16 when variable of intelligence was added and contribution towards personality extraversion was not significant. Whereas the contribution of personality neuroticism and intelligence together were found to be significant and responsible for 88.94% of the variation in high level of life satisfaction among school teachers.

The independent variable $x_4$, i.e., mental health was added to the 3rd equation and final trial was run which brought out the value of $R^2$ to the level of 0.9122. This showed that as high as 91.22 percent of the variation in high level of life satisfaction among school teachers was explained by all the four independent variables together included in the final run equation namely, personality extraversion, personality neuroticism, intelligence and mental health.

The regression coefficients of independent variables arrived at in the final run equation revealed that an increase of one unit in each of the independent variable would result in an increase of 1.76 unit, 1.02 unit, 1.96 unit and 0.86 units in high level of life satisfaction respectively by personality extraversion, personality neuroticism, intelligence and mental health respectively. But the contribution of independent variable $x_4$ i.e., mental health towards the variance in high level of life satisfaction was not found to be significant.

Thus, hypothesis 15(b), namely, “Significant variance towards high level of life satisfaction among government and private school teachers would be contributed by major psycho factors such as personality, intelligence and mental health” has been partially accepted.
HYPOTHESIS 15(c)

To test hypothesis 15(c) which states, “Significant variance towards average level of life satisfaction among government and private primary school teachers would be contributed by major psycho factors such as personality, intelligence and mental health”, the step-wise regression analysis was done and the results of the analysis are presented in Table 7.15.3.

RESULTS

Table 7.15.3

<table>
<thead>
<tr>
<th>Variables</th>
<th>R²</th>
<th>R</th>
<th>% Variance</th>
<th>F-Ratio</th>
<th>Step-Regression Equations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y. X1</td>
<td>0.8312**</td>
<td>0.9117**</td>
<td>83.12</td>
<td>484.83</td>
<td>Y = 54.00 + 1.79 (X1)</td>
</tr>
<tr>
<td>Y. X1,X2</td>
<td>0.8531**</td>
<td>0.9236**</td>
<td>85.31</td>
<td>277.83</td>
<td>Y = 53.09 + 1.83 (X1) + 2.36 (X2)</td>
</tr>
<tr>
<td>Y. X1,X2,X3</td>
<td>0.8814**</td>
<td>0.9388**</td>
<td>88.14</td>
<td>190.49</td>
<td>Y = 53.67 + 1.123 (X1) + 1.836 (X2) + 1.06 (X3)</td>
</tr>
<tr>
<td>Y. X1,X2,X3,X4</td>
<td>0.9047**</td>
<td>0.9512**</td>
<td>90.47</td>
<td>167.54</td>
<td>Y = 54.18 + 2.87 (X1) + 1.96 (X2) + 3.86 (X3) + 0.16 (X4)</td>
</tr>
</tbody>
</table>

* Significant at 0.05 level
** Significant at 0.01 level

DISCUSSION OF RESULTS

The values of multiple R were found to be increasing with each addition of another independent variable to the previously included variable (s). The magnitude of multiple R existed between 0.9117 to 0.9512. This increasing trend showed that addition of each variable contributed an increased prediction of average level of life satisfaction among school teachers.

In the first step-up equation, the effect of X1 variable, i.e., personality extraversion was seen among school teachers having average level of life satisfaction. The value of R² came to be 0.8312, significant at one per cent, which showed that personality extraversion alone contributed 83.12 percent towards average level of life satisfaction among school teachers.
variation in average level of life satisfaction among school teachers.

The variable $x_2$, personality neuroticism, was added to $x_1$ (personality extraversion) in the 2nd trial which resulted in a higher value of $R^2$ to the level of 0.8531, again significant 0.01 level. This revealed that both aspects of personality, i.e., $x_1$ and $x_2$ together contributed 85.31% towards variation in average level of life satisfaction among school teachers.

In the third equation, another independent variable $x_3$ i.e., intelligence was added to the variables included in the second equation. The value of $R^2$ raised from 0.8531 to 0.8814 which indicated that the third independent variable included in the 3rd equation together explained as much as 88.14 percent of the variation in the average level of life satisfaction among school teachers but the regression coefficient of independent variable of $x_1$, i.e., personality extraversion was not significant as its value was reduced from 1.83 in the second step-up equation to 1.123 in the third step-up equation when variable of intelligence was added to the previous run equation.

In the final step-up equation, the fourth independent variable $x_4$ i.e., mental health was included in the 3rd trial equation and got the increased value of $R^2$ of the order of 0.9047 which was significant at one percent level. This indicated that as high as 90.47 percent of the variation in average level of life satisfaction among school teachers was explained by the four independent variables taken together, namely personality extraversion, personality neuroticism, intelligence and mental health. The remaining 9.53 percent of the variation in average level of life satisfaction among school teachers remained unexplained for which factors other than included in the final run equation are responsible.

The regression coefficients in the final step-up equation led us to the conclusion that an addition of one unit in each of the independent variables would result in an increase of 2.87, 1.96, 3.86 and 0.16 units in average level of life satisfaction by personality neuroticism, personality extraversion, intelligence and mental health respectively. But the value of independent variable $x_4$, i.e., mental health was not significant which indicates that the contribution of mental health towards the variance of average level of life satisfaction was not significant.
Thus, hypothesis 1(c), namely, "significant variance towards average level of life satisfaction among school teachers of government and private schools would be contributed by major psycho correlates such as personality extraversion, personality neuroticism, intelligence and mental health", has been partially accepted.

**HYPOTHESIS 1(d)**

To test hypothesis 15(d) states, "Significant variance, towards low level of life satisfaction among government and private primary school teachers would be contributed by major psycho factors such as personality, intelligence and mental health", the step-wise regression analysis was done and the results of the analysis are presented in Table 7.15.4.

**RESULTS**

Table 7.15.4

<table>
<thead>
<tr>
<th>Variables</th>
<th>R²</th>
<th>R</th>
<th>% Variance</th>
<th>F-Ratio</th>
<th>Step-Regression Equations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y.X:1</td>
<td>0.7635**</td>
<td>0.8738**</td>
<td>76.35</td>
<td>429.37</td>
<td>Y=47.36 + 1.46** (X:1)</td>
</tr>
<tr>
<td>Y.X:2</td>
<td>0.7844**</td>
<td>0.8857**</td>
<td>78.44</td>
<td>240.12</td>
<td>Y=46.57 + 1.67** (X:1) + 1.08** (X:2)</td>
</tr>
<tr>
<td>Y.X:3</td>
<td>0.8115**</td>
<td>0.9008**</td>
<td>81.15</td>
<td>187.99</td>
<td>Y=46.61 + 0.87** (X:1) + 1.50** (X:2) + 0.316** (X:3)</td>
</tr>
<tr>
<td>Y.X:4</td>
<td>0.8468**</td>
<td>0.9202**</td>
<td>84.68</td>
<td>179.64</td>
<td>Y=44.26 + 1.203** (X:1) + 1.38** (X:2) + 0.388** (X:3) + 0.47** (X:4)</td>
</tr>
</tbody>
</table>

* Significant at 0.05 level
** Significant at 0.01 level

**DISCUSSION OF RESULTS**

The values of multiple R showed an increasing trend with the addition of one variable to the previous trial equation. The multiple R values ranged between 0.8738 to 0.9202. This revealed that addition of each variable showed its contribution towards an increased prediction of low level of life satisfaction on the basis of independent variables among school teachers.
In the first step-up equation, variable $x_1$, namely personality extraversion alone was regressed on low level of life satisfaction. In this equation, $R^2$ was 0.7635 which was significant at one percent. This indicated that there was 76.35 percent of the variation in low level of life satisfaction among school teachers. The contribution of personality extraversion was not significant.

In the second trial, variable $x_2$, i.e., personality neuroticism was added to previous step-up equation and the value of $R^2$ raised to the level of 0.7844. This indicated that 78.44 percent of the variation of low level of life satisfaction among school teachers was contributed by personality extraversion and personality neuroticism at a significant level of one percent but the contribution of personality extraversion was not significant.

Independent variable $x_3$, i.e., intelligence, was included in the third equation of regression analysis. $R^2$ came to be 0.8115 significant but the stepwise regression in the independent variable of intelligence was not significant. This revealed that personality extraversion, personality neuroticism and intelligence together were responsible for 81.15 percent of the variation in low level of life satisfaction among school teachers. The regression coefficient of independent variables $x_1$ i.e. personality extraversion and $x_3$ i.e., intelligence were not significant.

In the final step-up equation, variable symboled as $x_4$ and named as mental health was also included. In this equation the value of $R^2$ raised from 0.8115 in the $3^{rd}$ equation to 0.8468 which was found to be significant at 0.01 level. But the regression coefficients of personality extraversion and intelligence were not significant. This highlighted that all the two independent variables under study, i.e., personality neuroticism and intelligence significantly contributed towards variation in low level of life satisfaction among school teachers.

The regression coefficients of independent variables in the final run equation revealed that the effect of personality extraversion and intelligence on low level of life satisfaction were not significant while an addition of one unit each in personality neuroticism and mental health led towards a significant increase of
1.38 and 0.47 units respectively in low level among school teachers

Thus, hypothesis 15(d), namely, “Significant variance, towards low level of life satisfaction among government and private primary school teachers would be contributed by major psycho factors such as personality, intelligence and mental health of life satisfaction”, stands partially accepted.

**HYPOTHESIS 16(a)**

To test the hypothesis 16(a) which states, “Significant variance towards life satisfaction among school teachers of government and private schools, would be contributed by major social correlates such as socio-economic status and modernisation”, step-up regression analysis was applied. The description of social factors used in regression analysis has been given in Table 7.16. The results of the regression analysis have been presented in Table 7.16.1.

**Table 7.16**

**Description of social factors used in regression analysis**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Type of Variable</th>
<th>Name of Variable</th>
<th>Symbol of Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Dependent</td>
<td>Life Satisfaction</td>
<td>Y</td>
</tr>
<tr>
<td>2.</td>
<td>Independent</td>
<td>Socio-Economic Status</td>
<td>x₁</td>
</tr>
<tr>
<td>3.</td>
<td>Independent</td>
<td>Modernization</td>
<td>x₂</td>
</tr>
</tbody>
</table>

**RESULTS**

**Table 7.16.1**

**Social factors affecting life satisfaction of primary school teachers**

<table>
<thead>
<tr>
<th>Variables</th>
<th>R²</th>
<th>R</th>
<th>% Variance</th>
<th>F-Ratio</th>
<th>Step-Regression Equations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y,x₁</td>
<td>0.6987**</td>
<td>0.8358**</td>
<td>69.87</td>
<td>380.56</td>
<td>Y=52.08*+0.162* (x₁)</td>
</tr>
<tr>
<td>Y,x₁,x₂</td>
<td>0.7156**</td>
<td>0.8459**</td>
<td>71.56</td>
<td>189.34</td>
<td>Y=50.16**+0.151* (x₁)+0.93** (x₂)</td>
</tr>
</tbody>
</table>

* Significant at 0.05 level

**Significant at 0.01 level
The multiple R value was found to be increasing with the addition to second independent variable to the previous existed in the regression equation. The multiple R-value was raised from 0.8358 to 0.8459.

In the first step-up equation, independent variable $x_1$, i.e., socio-economic status was regressed on life satisfaction where the value of $R^2$ came to be 0.6987 which was significant at 0.01 level. This indicated that socio-economic status alone explained as much as 69.87 percent of the variation in life satisfaction among school teachers.

In the second and final step-up equation, variable $x_2$ and named as modernization was included. The value of $R^2$ was observed to be increasing from 0.6987 to 0.7156, again significant at one per cent level. This highlighted that socio-economic status and modernization together contributed to the order of 71.56 percent towards variance of life satisfaction among school teachers of government and private schools.

The regression coefficients of modernization was not significant which suggests that modernization has not caused significant variance in the life satisfaction of primary school teachers.

Hence, Hypothesis 16(a), namely, “Significant variance towards life satisfaction among government and private school teachers would be contributed by major social factors such as socio-economic status and modernization”, stands partially accepted.

**HYPOTHESIS 16(b)**

To test hypothesis, 16 (b) which states “Significant variance towards high level of life satisfaction among government and private school teachers would be contributed by major social factors such as socio-economic status and modernization”. The regression analysis in step-up manner was done and the results of the same are shown in Table 7.16.2.
RESULTS

Table 7.16.2

Social factors affecting life satisfaction among teachers having high level of life satisfaction

<table>
<thead>
<tr>
<th>Variables</th>
<th>R²</th>
<th>R</th>
<th>% Variance</th>
<th>F-Ratio</th>
<th>Step-Regression Equations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y.x₁</td>
<td>0.5865**</td>
<td>0.7658**</td>
<td>58.65</td>
<td>228.36</td>
<td>Y = 60.053* + 1.36* (x₁)</td>
</tr>
<tr>
<td>Y.x₁x₂</td>
<td>0.6137**</td>
<td>0.7834**</td>
<td>61.37</td>
<td>127.09</td>
<td>Y = 60.63 + 2.13* (x₁) + 0.67* (x₂)</td>
</tr>
</tbody>
</table>

* Significant at 0.05 level
** Significant at 0.01 level

DISCUSSION OF RESULTS

The values of multiple - R came to be 0.7658 in the 1st equation where only one independent variable x₁ was tried which increased the level to 0.7834 in the second equation. This increasing trend in multiple R values showed that the social variables under study contributed towards increased prediction of high level of life satisfaction among school teachers of government and private schools.

In the first trial, variable x₁, namely, socio-economic status was regressed on high level of life satisfaction when the value of R² came to be 0.5865, which was significant at 0.01 level of significance. This indicated that socio-economic status alone was responsible for 58.65 percent of the variation in high level of life satisfaction among school teachers.

The inclusion of independent variable x₂, i.e., modernization in the first run equation resulted in an increased value of R² of the order of 0.6137, again significant at 0.01 level. This showed that both the social variables such as socio-economic status and modernization contributed 61.37 percent towards variation in high level of life satisfaction among school teachers. The regression coefficient of socio-economic status was increased to 2.13 which was significant.
at 0.05 level of significance, indicating an increase of 2.13 unit in high level of life satisfaction among school teachers with an increase of one unit in socio-economic status.

Thus, hypothesis 16(b), namely, “Significant variance towards high level of life satisfaction among school teachers of government and private schools would be contributed by the major social factors such as socio-economic status and modernization”, stands accepted.

HYPOTHESIS 16 (c)

To test hypothesis 2(c), namely, “Significant variance towards average level of life satisfaction among school teachers of government and private schools would be contributed by the major social factors such as socio-economic status and modernization”, the step-up regression analysis was done and the results of the analysis have been incorporated in Table 7.16.3.

RESULTS

Table 7.16.3

Social factors affecting life satisfaction among teachers having average level of life satisfaction

<table>
<thead>
<tr>
<th>Variables</th>
<th>R²</th>
<th>R</th>
<th>% Variance</th>
<th>F-Ratio</th>
<th>Step-Regression Equations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y,X₁</td>
<td>0.5945**</td>
<td>0.7710**</td>
<td>59.45</td>
<td>293.94</td>
<td>Y=52.23*+0.98* (X₁)</td>
</tr>
<tr>
<td>Y,X₁X₂</td>
<td>0.6208**</td>
<td>0.7879**</td>
<td>62.08</td>
<td>162.89</td>
<td>Y=51.97NS+2.57NS (X₁)+0.277NS (X₂)</td>
</tr>
</tbody>
</table>

* Significant at 0.05 level
**Significant at 0.01 level

DISCUSSION OF RESULTS

The value of multiple R increased from 0.7710 in the 1st first run equation where, only socio-economic variable was taken as independent variable while in the second run equation, modernization variable was also included.
In the first trial, variable $x_1$, namely, socio-economic status was regressed against average level of life satisfaction. The value of $R^2$ came to be 0.5945, significant at 0.01 level. This indicated that as much as 59.45 percent of the variation in average level of life satisfaction among school teachers was contributed by socio-economic status alone.

In the second and final step-up equation, variable $x_2$, i.e., modernization was included in the regression equation. The value of $R^2$ increased from 0.5945 to 0.6208, again significant at one percent level. It was found that out of two, only one social variable socio-economic status, is the casual significant factor in the variance of high level of life satisfaction while modernization is not the casual significant factor in the variance of average level of life satisfaction among school teachers of government and private schools.

The regression coefficient of socio-economic status came to be significant. Which indicated that an increase of 0.98 units in average level of life satisfaction would occur with an increase of one unit in socio-economic status. But the regression coefficient of modernization was found to be not-significant. This showed that the contribution of modernization towards average level of life satisfaction among school teachers was not significant.

Thus, hypothesis 16(c), namely, “Significant variance towards average level of life satisfaction among school teachers of government and private schools would be contributed by the major social factors such as socio-economic status and modernization”, stands partially accepted.

**HYPOTHESIS 16(d)**

To test hypothesis 16(d), namely, “Significant variance towards low level of life satisfaction among school teachers of government and private schools would be contributed by the major social factors such as socio-economic status and modernization”, the regression analysis was done and the results of the analysis are shown in Table 7.16.4.
RESULTS

Table 7.16.4
Social factors affecting life satisfaction among teachers having low level of life satisfaction

<table>
<thead>
<tr>
<th>Variables</th>
<th>$R^2$</th>
<th>$R$</th>
<th>% Variance</th>
<th>F-Ratio</th>
<th>Step-Regression Equations</th>
</tr>
</thead>
<tbody>
<tr>
<td>$Y,X_1$</td>
<td>0.6871**</td>
<td>0.8289**</td>
<td>68.71</td>
<td>292.06</td>
<td>$Y=41.41^<em>+1.34^</em> (X_1)$</td>
</tr>
<tr>
<td>$Y,X_1X_2$</td>
<td>0.7003**</td>
<td>0.8368**</td>
<td>70.03</td>
<td>154.22</td>
<td>$Y=43.28^<em>+1.22^</em> (X_1)+0.12^{NS} (X_2)$</td>
</tr>
</tbody>
</table>

* Significant at 0.05 level
** Significant at 0.01 level

DISCUSSION OF RESULTS

The value of multiple $R$ increased from 0.8289 with one variable ($X_1$) to 0.8368 with two variables ($X_1X_2$). This increasing trend showed that inclusion of another variable contributed towards the increased prediction of low level of life satisfaction among school teachers.

In the first step-up equation, variable symbolled as $X_1$ and named as socio-economic status variable was regressed on low level of life satisfaction among school teachers. The value of $R^2$ came to be 0.6871, significant at 0.01 level of significance. This showed that 68.71 percent of the variation in low level of life satisfaction among school teachers was explained by socio-economic status alone.

In the final step-up equation, variable $X_2$, i.e., modernization was included in the first - run regression equation. The value of $R^2$ increased to the level of 0.7003, again significant at 0.01 level of significance. This indicated that as much as 70.03 percent of the variation in low level of life satisfaction was contributed by both the social variables such as socio-economic status and modernization. But the regression coefficient only of socio-economic status was found to be significant while the same of modernization came to be not-significant in the final run equation. This showed that contribution towards variance of low level of life satisfaction among school teachers by socio-economic status was significant and that of by modernization was not significant.
Hence, hypothesis 16(d) namely, “Significant variance towards low level of life satisfaction among school teachers of government and private schools would be contributed by the major social factors such as socio-economic status and modernization”, stands partially accepted.

**CONCLUSIONS**

The analysis and the interpretation of the results presented in this chapter lead to the following conclusions:

- It was found that all the four independent psycho variables, i.e., personality extraversion, personality neuroticism, intelligence and mental health are the casual significant factors in the variance of life satisfaction among school teachers of government and private schools but the personality extraversion and neuroticism was not significant factor in the variance of life satisfaction among the primary school teachers.

- It was found that all the four independent psycho variables, personality extraversion, personality neuroticism, intelligence and mental health are the casual significant factors in the variance of high level of life satisfaction among school teachers of government and private schools. While the personality extraversion and intelligence were not significant contributors. However, the contribution of other factors cannot be ruled out.

- It was found that all the four independent psycho variables, personality extraversion, personality neuroticism, intelligence and mental health are the casual significant factors in the variance of average level of life satisfaction among school teachers from government and private schools but the personality extraversion is not a significant contributor. There may be contribution of other factors also.

- It was found that all the four independent psycho variables, personality extraversion, personality neuroticism, intelligence and mental health are the casual factors in the variance of low level of life satisfaction among the school teachers of government and private schools. But the personality extraversion and intelligence are not the significant contributors. There may be some other variables which are responsible for the unexplained
variance of life satisfaction.

- It was found that social variables, i.e. socio-economic status and modernization are the casual significant factors in the variance of life satisfaction among school teachers of government and private schools while modernization is not a significant contributor.

- It was found that out of two, only one social variable socio-economic status, is the casual significant factor in the variance of high level of life satisfaction while modernization is the casual not significant factor in the variance of high level of life satisfaction among school teachers of government and private schools. The unexplained variance may be attributed to some other factors.

- It was found that out of two, only one social variable, socio-economic status emerged as the casual significant factor and the modernization is the casual non significant factor in variance of average level of life satisfaction among school teachers of government and private schools. The contribution of other factors cannot be ruled out.

- It was found that out of two, only one social variable, socio-economic status is the casual significant and modernization is the casual non significant factor in variance of low level of life satisfaction among school teachers of government and private schools. But there would be some other variables which might be the contributors towards variance of life satisfaction.