

*CHAPTER – IV*

*SAVING, INVESTMENT AND  
CONSUMPTION PATTERN*

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**CHAPTER IV**  
**SAVING, INVESTMENT AND CONSUMPTION**  
**PATTERN OF RETIRED HOUSEHOLDS**

Interest in the characteristics of older persons is flourishing due to the increasing size of the population. As people grow older they experience a combination of social, physical and psychological changes. During the transition from active life to retirement, individuals involve in developmental tasks which may be personal and social, such as choosing activities to replace work, ensuring financial independence, maintaining social networks or creating new ones and establishing a scale of values. These tasks give rise to a series of adaptive demands which are naturally subjected to change over time. The transition from active to retired life and the adaptation to retirement take place in quite different ways.

The present research is focused to study the retired households socio economic profile, employment aspects, saving, investment and consumption pattern, role and involvement in family decision making process and the satisfaction towards the retired life.

The first and second objective of the study deals with the following aspects namely:

- Socio economic profile
- Monthly income, expenditure and savings after retirement.
- Type of employment after retirement.
- Retirement status.
- Present employment status.
- Motivational factors for working after retirement.
- Financial income after retirement.
- Saving, investment and consumption pattern.

#### 4.1 GENERAL PROFILE OF THE RESPONDENTS

The socio-economic profile constitutes a significant component in understanding the social structure of the respondents. Table 4.1 gives the details about the general profile of the respondents.

**Table 4.1 - Socio-Economic Profile**

| <b>Profile Factors</b>     | <b>Particulars</b>                     | <b>No.</b> | <b>%</b> |
|----------------------------|--|------------|----------|
| Gender                     | Male                                   | 271        | 72.3     |
|                            | Female                                 | 104        | 27.7     |
| Age (years)                | 58-61                                  | 103        | 27.5     |
|                            | 62-65                                  | 131        | 34.9     |
|                            | 66-69                                  | 82         | 21.9     |
|                            | 70-74                                  | 59         | 15.7     |
| Marital Status             | Single                                 | 10         | 2.7      |
|                            | Married                                | 288        | 76.8     |
|                            | Widowed                                | 71         | 18.9     |
|                            | Divorced                               | 6          | 1.6      |
| Educational Qualification  | Up to School Level                     | 102        | 27.2     |
|                            | Graduation                             | 142        | 37.9     |
|                            | Post Graduation                        | 71         | 18.9     |
|                            | Professional                           | 60         | 16.0     |
| Area of Residence          | Urban                                  | 236        | 62.9     |
|                            | Rural                                  | 66         | 17.6     |
|                            | Semi-urban                             | 73         | 19.5     |
| Kind of Living Arrangement | Living with children                   | 76         | 20.3     |
|                            | Living with spouse                     | 73         | 19.5     |
|                            | Living with family (children & spouse) | 201        | 53.6     |
|                            | Living alone                           | 25         | 6.7      |

| <b>Profile Factors</b> | <b>Particulars</b> | <b>No.</b> | <b>%</b>     |
|------------------------|--------------------|------------|--------------|
| Type of Residence      | Own                | 313        | 83.5         |
|                        | Rental             | 62         | 16.5         |
| Size of Household      | Less than 3        | 104        | 27.7         |
|                        | 3-5                | 172        | 45.9         |
|                        | More than 5        | 99         | 26.4         |
| Head of Household      | Myself             | 238        | 63.5         |
|                        | Spouse             | 50         | 13.3         |
|                        | Son                | 70         | 18.7         |
|                        | Daughter           | 9          | 2.4          |
|                        | Son-in-law         | 8          | 2.1          |
| <b>TOTAL</b>           |                    | <b>375</b> | <b>100.0</b> |

**Source: Primary data**

The table 4.1 indicates the general profile of the 375 respondents.

- It is evident from the table that majority 72.3 per cent of the respondents are male. 34.9 per cent of the respondents are under the age group of 62-65 years and only 15.7 per cent of them belong to the age group of 70-74 years. Most of the respondents (76.8 per cent) are married.
- Regarding the educational qualification 37.9 per cent of the respondents completed under graduation while 16 per cent are professionals. The result shows that maximum numbers of respondents are graduates.
- In case of area of residence, 62.9 per cent of the respondents live in urban area. Most of the respondents live in own residence.
- Regarding the kind of living arrangement 53.6 per cent of the respondents live with their family (spouse and Children) while only 6.7 per cent of them are living alone.
- It is seen that 45.9 per cent of the respondents size of household is 3 to 5 members in the family and majority 63.5 per cent of the respondents are heading the family by themselves.

#### 4.2 MONTHLY INCOME, EXPENDITURE AND SAVINGS AFTER RETIREMENT

The financial well-being of the elderly seniors has been the subject of many recent studies. Income is one of the most important determinants of the quality life of the people. The following table exhibits the retired households monthly income, expenditure and savings after retirement.

**Table 4.2 - Monthly Income, Expenditure and Savings after Retirement**

| <b>Factors</b>                           | <b>Particulars</b> | <b>No.</b> | <b>%</b>     |
|--|--------------------|------------|--------------|
| Monthly income after retirement(Rs)      | Below 10000        | 49         | 13.1         |
|  | 10000 – 20000      | 118        | 31.5         |
|  | 20001 – 30000      | 77         | 20.5         |
|  | Above 30000        | 131        | 34.9         |
| Monthly expenditure after retirement(Rs) | Below 5000         | 44         | 11.7         |
|  | 5001 – 10000       | 154        | 41.1         |
|  | 10001 - 20000      | 84         | 22.4         |
|  | Above 20000        | 93         | 24.8         |
| Savings per month (Rs)                   | Below 5000         | 153        | 40.8         |
|  | 5001- 10000        | 117        | 31.2         |
|  | 10001 - 20000      | 42         | 11.2         |
|  | Above 20000        | 63         | 16.8         |
| <b>TOTAL</b>                             |                    | <b>375</b> | <b>100.0</b> |

**Source: Primary data**

The above table depicts the monthly income, expenditure and savings of the respondents. Regarding the monthly income after retirement, 34.9 per cent of the respondents have income pf above Rs.30, 000, followed by 31.5 per cent ranging between Rs.10, 000 – Rs, 20,000. Only 13.1 per cent of them have monthly income below Rs.10, 000.Regarding the monthly expenditure, 41 per cent of the respondents

spend between Rs.5001 to Rs.10,000 per month, since their spending play a larger role in driving economic trends, such as tourism, entertainment and health care etc. The data collected shows that regards to savings, a significant number of respondents with a percentage of 40.8 per cent save below Rs.5000 per month. It reveals that these people save as and when they have an excess income. They do not have any specific pattern or interval for which they save their income. But still 16.8 per cent of them save above Rs.20, 000 per month after retirement.

#### 4.3 EMPLOYMENT ASPECTS OF THE RESPONDENTS

Retirement patterns have changed extensively in recent years, and continue to evolve rapidly. The critical issue in the new retirement is to supplement their income. Retirees are involved by participating in some form of work environment. Table 4.3 gives the details about the employment aspects of the respondents.

**Table 4.3 - Distribution of Respondents based on their Employment Status**

| <b>Employment aspects</b>            | <b>Particulars</b>   | <b>No</b> | <b>%</b> |
|--------------------------------------|----------------------|-----------|----------|
| Occupation Held                      | Private Employee     | 164       | 43.7     |
|                                      | Government employee  | 211       | 56.3     |
| Retirement Status                    | Regular Retirement   | 254       | 67.7     |
|                                      | Voluntary Retirement | 121       | 32.3     |
| Years since retired from job (years) | Less than 5          | 145       | 38.7     |
|                                      | 5 – 10               | 125       | 33.3     |
|                                      | 11- 15               | 52        | 13.9     |
|                                      | More than 15         | 53        | 14.1     |
| Retirement benefits received         | Yes                  | 263       | 70.1     |
|                                      | No                   | 112       | 29.9     |
| Present employment status            | Not employed         | 199       | 53.1     |
|                                      | Part time employed   | 67        | 17.9     |
|                                      | Full time employed   | 109       | 29.1     |

**Source: Primary data**

The above table reveals that as regards to the occupation held by the respondents before retirement, majority 56.3 per cent of them are government employees. 67.7 per cent of the respondents retired under the scheme regular retirement where as 32.3 per cent voluntarily retired from the job. 38.7 per cent of the respondents have been retired from job less than 5 years. Most 70 per cent of the respondents received the retirement benefits. In case of present employment status, 53 per cent of the respondents are not employed, 17.9 per cent are partly employed and 29.1 per cent of them are full time employed after retirement, since they need to continue working in order to prevent a major decline in living standards.

#### **4.4 TYPE OF EMPLOYMENT AFTER RETIREMENT**

Working after retirement may fulfill important human needs of the retired households. Organizations may also benefit from the knowledge and experience of the older workers. The table 4.4 identifies the type of employment of the respondents after retirement.

**Table 4.4 - Type of Employment after Retirement**

| <b>Particulars</b> | <b>No.</b> | <b>Percent</b> |
|--------------------|------------|----------------|
| Private employee   | 64         | 36.4           |
| Self Employed      | 89         | 50.6           |
| Profession         | 23         | 13.1           |
| Total              | 176        | 100.0          |

**Source: Primary data**

It is observed from the above table that out of 375 respondents taken for the study; nearly 50 per cent took up some type of occupation. Therefore it is noted that 50.6 per cent of the respondents are self employed, 36.4 per cent of them are private employees and the remaining 13.1 per cent are continuing their professional work after retirement.

#### 4.5 MOTIVATIONAL FACTORS FOR WORKING AFTER RETIREMENT

Motivation to continue working after retirement is concerned with the expectations and preferences towards staying employed beyond retirement age. Descriptive analysis is used to find the mean ratings for the motivational factors for working after retirement. The motivational factors are measured by the ratings given by the respondents for 8 items at five point scale. The ratings are assigned as 5 for 'highly motivated', 4 for 'motivated', 3 for 'neutral', 2 for 'not motivated', 1 for 'not at all motivated'. High score indicates more level of motivation. The following table 4.5 investigates the motivational factors for working after retirement.

**Table 4.5 - Descriptive Statistics – Motivational Factors**

| <b>Motivational factors</b>                  | <b>N</b> | <b>Minimum</b> | <b>Maximum</b> | <b>Mean</b> | <b>S.D</b> |
|--|----------|----------------|----------------|-------------|------------|
| Need money for future financial security     | 176      | .00            | 4.00           | 3.0966      | 1.0727     |
| To spend for children Education/<br>Marriage | 176      | .00            | 4.00           | 2.5398      | 1.4730     |
| No one to depend on for monetary<br>support  | 176      | .00            | 4.00           | 2.8182      | 1.1268     |
| Want to lead an active life                  | 176      | .00            | 4.00           | 3.1989      | .9682      |
| Unable to stay at home                       | 176      | .00            | 4.00           | 2.6477      | 1.2653     |
| Trustfully employ my skill & ability         | 176      | .00            | 4.00           | 2.8977      | 1.0854     |
| Financial support for Spouse and children    | 176      | .00            | 4.00           | 2.8864      | 1.3347     |
| To spend retired life peacefully             | 176      | .00            | 4.00           | 2.8750      | 1.2722     |

**Source: Computed**

The above table shows the average rating for the motivational factors for working after retirement. The highest rating is found for “want to lead an active life” (3.19), followed by “need money for future financial security” (3.09), “trustfully employ my skills and ability” (2.89). The lowest mean rating was (2.53) found for “to spend for children education/marriage”. It is concluded that the standard deviation is low for “want to lead an active life, implies that, this factor is considered as the main motivational factor for working after retirement.



#### 4.6 FINANCIAL INCOME AFTER RETIREMENT

Social and employment policies increasingly emphasis extending work life and increasing effective retirement age. Retirees need to budget carefully to stay within their fixed income. If the value of their investment sinks after retirement, they often have little choice but to spend less or return to the workforce.

Descriptive analysis is used to find the mean ratings for the main sources of financial income after retirement. The factors are measured by the ratings given by the respondents at five point scale. The ratings are assigned as 5 for 'highly supported', 4 for 'supported', 3 for 'neutral', 2 for 'not supported', and 1 for 'not at all supported'. Thus the ratings will indicate higher the value, more is the supported source of income. . Mean ratings were found out for each factor and given in the following table 4.6.

**Table 4.6 - Descriptive Statistics – Sources of Financial Income**

| Sources of Income                   | N   | Minimum | Maximum | Mean | S.D  |
|-------------------------------------|-----|---------|---------|------|------|
| Salary/Business Income              | 375 | 0       | 4       | 1.55 | 1.77 |
| Pension                             | 375 | 0       | 4       | 2.37 | 1.50 |
| Income from house property          | 375 | 0       | 4       | 2.00 | 1.46 |
| Income from spouse                  | 375 | 0       | 4       | 1.38 | 1.53 |
| Income from children                | 375 | 0       | 4       | 2.36 | 1.51 |
| Personal Savings                    | 375 | 0       | 4       | 2.54 | 1.12 |
| Agricultural income                 | 375 | 0       | 4       | 1.06 | 1.30 |
| Bank deposits                       | 375 | 0       | 4       | 2.63 | 1.14 |
| Post Office Savings                 | 375 | 0       | 4       | 1.70 | 1.53 |
| Private chits                       | 375 | 0       | 4       | 1.74 | 1.42 |
| Investment in Industrial Securities | 375 | 0       | 4       | 1.04 | 1.26 |

**Source: Computed**

The above table 4.6 shows the average rating for the main sources of financial income after retirement. The highest rating is found for Bank deposits (2.63), followed by Personal savings (2.54), Pension (2.37), income from children (2.36), income from house property (2.00). The lowest rating is found for investment in industrial securities (1.04). Therefore it is concluded that the bank deposit have been the favourite investment avenue for the retired people. It is found that the standard deviation value is low for personal savings and bank deposits, implies that, these factors are considered to be the main sources of financial income by most of the respondents.

#### **4.7 SAVING, INVESTMENT AND CONSUMPTION PATTERN**

Adjustment to retirement and the consequent economic changes make “the golden years” one of the more difficult, yet interesting phases of the entire life cycle. Number of people are retiring earlier in life and, at the same time, many are living longer. These events, coupled with the demographic changes in the elderly population, make the consumption and savings behaviour of the retired increasingly noteworthy. The investment pattern and saving habits of the retired households is determined by their expectations from the various preferred avenues. Preference may vary due to various considerations i.e. safety, liquidity and marketability, returns, tax benefits, risk involved etc. Investment also depends upon the awareness about investment opportunities, level of knowledge and how these investment opportunities are evaluated and selected.

The second objective of the study is to analyze the saving, investment and consumption pattern of retired households.

#### **4.7 PRESENT SAVINGS HABIT**

Savings is the portion of income not spent on current expenditures. It helps an individual or family to become financially secure. The table below reveals the present savings habit of the retired households with the money at their disposal.

**Table 4.7 -Present Savings Habit**

| <b>Particulars</b>                    | <b>No.</b> | <b>Per cent</b> |
|---------------------------------------|------------|-----------------|
| High [>70% of money at disposal]      | 62         | 16.5            |
| Medium [40%-70% of money at disposal] | 170        | 45.3            |
| Low [<40% of money at disposal]       | 143        | 38.1            |
| Total                                 | 375        | 100.0           |

**Source: Primary data**

The data collected shows that with regards to savings, 45.3 per cent save at a medium level ranging between 40 to 70 per cent of the money at their disposal. 38.1 per cent of the respondents can be said to be prolific (fruitful, productive) savers who save less than 40 per cent of money at their disposal.

#### **4.8 SOCIO ECONOMIC PROFILE VS PRESENT SAVINGS HABIT**

Most individuals and families primary aim of earning money is to spend it to meet their immediate needs and wants. The present level of savings habit of the respondents with the money at their disposal is associated with the socio economic profile of the respondents and the following null hypotheses have been framed to test the association.

**H<sub>0</sub>:** "There is no significant association between present savings habit and the socio economic profile".

**Table 4.8 - Socio Economic Profile Vs Present Savings Habit**

| Variable                  | Particulars        | Present savings habit with the money at disposal |      |        |      |     |      | TOTAL |       | Table Value | Chi-Square Value | df | Sig |
|---------------------------|--------------------|--|------|--------|------|-----|------|-------|-------|-------------|------------------|----|-----|
|                           |                    | High   |      | Medium |      | Low |      | No.   | %     |             |                  |    |     |
|                           |                    | No.  | %    | No.    | %    | No. | %    |       |       |             |                  |    |     |
| Gender                    | Male               | 39   | 14.4 | 122    | 45.0 | 110 | 40.6 | 271   | 100.0 | 5.991       | 4.281            | 2  | Ns  |
|                           | Female             | 23   | 22.1 | 48     | 46.2 | 33  | 31.7 | 104   | 100.0 |             |                  |    |     |
| Age (years)               | 58-61              | 20   | 19.4 | 53     | 51.5 | 30  | 29.1 | 103   | 100.0 | 12.592      | 10.600           | 6  | Ns  |
|                           | 62-65              | 26   | 19.8 | 58     | 44.3 | 47  | 35.9 | 131   | 100.0 |             |                  |    |     |
|                           | 66-69              | 8  | 9.8  | 34     | 41.5 | 40  | 48.8 | 82    | 100.0 |             |                  |    |     |
|                           | 70-74              | 8  | 13.6 | 25     | 42.4 | 26  | 44.1 | 59    | 100.0 |             |                  |    |     |
| Marital Status            | Single             | 7  | 70.0 | 3      | 30.0 | -   | -    | 10    | 100.0 | 9.210       | 27.675           | 6  | **  |
|                           | Married            | 48   | 16.7 | 135    | 46.9 | 105 | 36.5 | 288   | 100.0 |             |                  |    |     |
|                           | Widowed            | 6  | 8.5  | 30     | 42.3 | 35  | 49.3 | 71    | 100.0 |             |                  |    |     |
|                           | Divorced           | 1  | 16.7 | 2      | 33.3 | 3   | 50.0 | 6     | 100.0 |             |                  |    |     |
| Educational Qualification | Up to School Level | 4  | 3.9  | 45     | 44.1 | 53  | 52.0 | 102   | 100.0 | 9.210       | 38.295           | 6  | **  |
|                           | Graduation         | 25   | 17.6 | 65     | 45.8 | 52  | 36.6 | 142   | 100.0 |             |                  |    |     |
|                           | Post Graduation    | 10   | 14.1 | 35     | 49.3 | 26  | 36.6 | 71    | 100.0 |             |                  |    |     |
|                           | Professional       | 23   | 38.3 | 25     | 41.7 | 12  | 20.0 | 60    | 100.0 |             |                  |    |     |

| Variable                             | Particulars          | Present savings habit with the money at disposal |      |        |      |     |      | TOTAL |       | Table Value | Chi-Square Value | df | Sig |
|--------------------------------------|----------------------|--|------|--------|------|-----|------|-------|-------|-------------|------------------|----|-----|
|                                      |                      | High   |      | Medium |      | Low |      | No.   | %     |             |                  |    |     |
|                                      |                      | No.  | %    | No.    | %    | No. | %    |       |       |             |                  |    |     |
| Area of residence                    | Urban                | 45   | 19.1 | 102    | 43.2 | 89  | 37.7 | 236   | 100.0 | 9.488       | 8.839            | 4  | Ns  |
|                                      | Rural                | 11   | 16.7 | 36     | 54.5 | 19  | 28.8 | 66    | 100.0 |             |                  |    |     |
|                                      | Semi-urban           | 6  | 8.2  | 32     | 43.8 | 35  | 47.9 | 73    | 100.0 |             |                  |    |     |
| Kind of living arrangement           | Living with children | 6  | 7.9  | 31     | 40.8 | 39  | 51.3 | 76    | 100.0 | 16.812      | 23.431           | 6  | **  |
|                                      | Living with spouse   | 15   | 20.5 | 35     | 47.9 | 23  | 31.5 | 73    | 100.0 |             |                  |    |     |
|                                      | Living with family   | 30   | 14.9 | 95     | 47.3 | 76  | 37.8 | 201   | 100.0 |             |                  |    |     |
|                                      | Living alone         | 11   | 44.0 | 9      | 36.0 | 5   | 20.0 | 25    | 100.0 |             |                  |    |     |
| Type of Residence                    | Own                  | 59   | 18.8 | 145    | 46.3 | 109 | 34.8 | 313   | 100.0 | 9.210       | 11.992           | 2  | **  |
|                                      | Rental               | 3  | 4.8  | 25     | 40.3 | 34  | 54.8 | 62    | 100.0 |             |                  |    |     |
| Monthly income after retirement      | Below Rs.10000       | 1  | 2.0  | 19     | 38.8 | 29  | 59.2 | 49    | 100.0 | 9.210       | 76.197           | 6  | **  |
|                                      | Rs.10000 - 20000     | 6  | 5.1  | 59     | 50.0 | 53  | 44.9 | 118   | 100.0 |             |                  |    |     |
|                                      | Rs.20001 - 30000     | 5  | 6.5  | 40     | 51.9 | 32  | 41.6 | 77    | 100.0 |             |                  |    |     |
|                                      | Above Rs.30000       | 50   | 38.2 | 52     | 39.7 | 29  | 22.1 | 131   | 100.0 |             |                  |    |     |
| Monthly expenditure after retirement | Below Rs.5000        | 3  | 6.8  | 18     | 40.9 | 23  | 52.3 | 44    | 100.0 | 16.812      | 36.607           | 6  | **  |
|                                      | Rs.5001 - 10000      | 11   | 7.1  | 76     | 49.4 | 67  | 43.5 | 154   | 100.0 |             |                  |    |     |
|                                      | Rs.10001 -20000      | 17   | 20.2 | 42     | 50.0 | 25  | 29.8 | 84    | 100.0 |             |                  |    |     |
|                                      | Above Rs.20000       | 31   | 33.3 | 34     | 36.6 | 28  | 30.1 | 93    | 100.0 |             |                  |    |     |

| Variable          | Particulars      | Present savings habit with the money at disposal |             |            |             |            |             | TOTAL      |              | Table Value | Chi-Square Value | df | Sig |
|-------------------|------------------|--|-------------|------------|-------------|------------|-------------|------------|--------------|-------------|------------------|----|-----|
|                   |                  | High   |             | Medium     |             | Low        |             | No.        | %            |             |                  |    |     |
|                   |                  | No.  | %           | No.        | %           | No.        | %           |            |              |             |                  |    |     |
| Savings per month | Below Rs.5000    | 8  | 5.2         | 52         | 34.0        | 93         | 60.8        | 153        | 100.0        | 16.812      | 145.47           | 6  | **  |
|                   | Rs.5001- 10000   | 12   | 10.3        | 69         | 59.0        | 36         | 30.8        | 117        | 100.0        |             |                  |    |     |
|                   | Rs.10001 - 20000 | 4  | 9.5         | 28         | 66.7        | 10         | 23.8        | 42         | 100.0        |             |                  |    |     |
|                   | Above Rs.20000   | 38   | 60.3        | 21         | 33.3        | 4          | 6.3         | 63         | 100.0        |             |                  |    |     |
|                   | <b>TOTAL</b>     | <b>62</b>  | <b>16.5</b> | <b>170</b> | <b>45.3</b> | <b>143</b> | <b>38.1</b> | <b>375</b> | <b>100.0</b> |             |                  |    |     |

Ns - Not significant \* - significant at 5% level \*\* - Significant at 1% level

- **Gender** - It is clear from the table that among the male respondents 45 per cent of them have medium level of savings habit and 40.6 per cent of them have low level of savings habit. Among female respondents 46.2 per cent and 31.7 percent have medium and low level of savings habit respectively.
- **Age** - The age considered for the study is between 58 years to 74 years. An analysis of the age distribution indicates that the respondents between the age group of 58 to 61 years, 51 per cent of them have medium level of savings habit and 48.8 per cent of the respondents between the age group of 66 to 69 years have low level of savings habit.
- **Marital Status** - Regards the marital status 46.9 per cent and 36.5 per cent of the married respondents have medium and low level of savings habit respectively.
- **Educational Qualification** - With regards to education, the respondents having up to School level education, 52 per cent of them have low level of savings habit and 44.1 per cent of them have medium level of savings habit. Under graduate and post graduate respondents have more or less medium and low savings habit. In case of professionals 41.7 per cent of them have medium level and 38.3 per cent of them have high level of savings habit i.e. they save more than 70 per cent of money at their disposal.
- **Area, Type of residence and kind of living arrangement** - Majority of the respondents live in urban areas and they have (43.2 per cent & 37.7 per cent) medium and low level of savings habit. The respondents who are living with family along with wife and children, 47.3 per cent and 37.8 per cent of them have medium and low level of savings habit respectively. Most of the respondents are living in own houses and they also have a medium (46.3 per cent) and low (34.8 per cent) of savings habit.
- **Monthly income, expenditure and savings after retirement** - Irrespective of the monthly income after retirement, most of them earn between Rs.10, 000 to Rs.20, 000 and have a medium (50 per cent) and low (44.9 percent) savings habit. With regards to monthly expenditure after retirement, the respondents who spend between Rs, 10,001 – 20,000 have a medium level of savings habit. As per

savings is considered the respondents saving ranging between Rs.10,001 to Rs.20,000 in a month have a medium level (66.7 per cent) while the savings ranges above Rs,20,000 have high level of savings habit of 60.3 per cent.

Chi-square analysis is employed to ascertain the association between the socio economic profile and the level of savings habit. It is observed from the above results that the present level of savings habit is significantly associated with marital status, education, kind of living arrangement, type of residence, monthly income, monthly expenditure and monthly savings per month after retirement. Hence the null hypothesis is rejected with respect to these variables only.

#### **4.9 EMPLOYMENT ASPECTS VS PRESENT SAVINGS HABIT**

In times of demographic change with the associated challenges for social security system and the looming lack of skilled workers, extending working life becomes increasingly significant. Chi-square analysis is employed to ascertain the relationship between the employment aspects and the present savings habit with the money at disposal by framing the following null hypothesis.

**H<sub>0</sub>:** “There is no significant relationship between the employment aspects and the present savings habit”.



**Table 4.9 - Employment aspects Vs present savings habit**

| Variable                     | Particulars         | Present savings habit with the money at your disposal |             |            |             |            |             | TOTAL      |              | Table Value | Chi Square Value | df | Sig |
|------------------------------|---------------------|---|-------------|------------|-------------|------------|-------------|------------|--------------|-------------|------------------|----|-----|
|                              |                     | High  |             | Medium     |             | Low        |             | No.        | %            |             |                  |    |     |
|                              |                     | No.   | %           | No.        | %           | No.        | %           |            |              |             |                  |    |     |
| Occupation held              | Private Employee    | 37  | 22.6        | 68         | 41.5        | 59         | 36.0        | 164        | 100.0        | 5.991       | 7.724            | 2  | *   |
|                              | Government Employee | 25  | 11.8        | 102        | 48.3        | 84         | 39.8        | 211        | 100.0        |             |                  |    |     |
| Years since retired from job | Less than 5 years   | 18  | 12.4        | 70         | 48.3        | 57         | 39.3        | 145        | 100.0        | 12.592      | 14.769           | 6  | *   |
|                              | 5-10 years          | 19  | 15.2        | 57         | 45.6        | 49         | 39.2        | 125        | 100.0        |             |                  |    |     |
|                              | 11-15 years         | 8   | 15.4        | 28         | 53.8        | 16         | 30.8        | 52         | 100.0        |             |                  |    |     |
|                              | More than 15 yrs    | 17  | 32.1        | 15         | 28.3        | 21         | 39.6        | 53         | 100.0        |             |                  |    |     |
| Retirement benefits received | Yes                 | 31  | 11.8        | 126        | 47.9        | 106        | 40.3        | 263        | 100.0        | 9.210       | 14.375           | 2  | **  |
|                              | No                  | 31  | 27.7        | 44         | 39.3        | 37         | 33.0        | 112        | 100.0        |             |                  |    |     |
| Present employment status    | Not Employed        | 20  | 10.1        | 101        | 50.8        | 78         | 39.2        | 199        | 100.0        | 13.277      | 24.816           | 4  | **  |
|                              | Part-time Employed  | 8   | 11.9        | 31         | 46.3        | 28         | 41.8        | 67         | 100.0        |             |                  |    |     |
|                              | Full-time Employed  | 34  | 31.2        | 38         | 34.9        | 37         | 33.9        | 109        | 100.0        |             |                  |    |     |
|                              | <b>TOTAL</b>        | <b>62</b>   | <b>16.5</b> | <b>170</b> | <b>45.3</b> | <b>143</b> | <b>38.1</b> | <b>375</b> | <b>100.0</b> |             |                  |    |     |

Ns - Not significant \* - significant at 5% level \*\* - Significant at 1% level

Based on the occupation held by the respondents before retirement, those who worked as a government employee, 48.3 per cent of them have a medium level of savings habit. The respondents who retired from job less than five years before have a medium level of savings habit (48.3 per cent), where as those who retired more than 15 years and above have a low level of savings habit (39.6 per cent). Most of the respondents receive the retirement benefits, and have a medium level of savings habit (47.9 per cent). In case of the present employment status, the respondents who are not employed have a medium and low level of savings habit of 50.8 per cent and 39.2 per cent respectively. The part-time and full time employed respondents also have a medium and low level of savings habit.

It is observed from the table exhibiting the chi-square values that all the four factors such as occupation held, years since retired from job, retirement benefits received, present employment status are significantly associated with the present savings habit. Hence, the null hypothesis is rejected with respect to these variables only.

#### **4.10 FACTORS MOTIVATED TO SAVE**

The following table reveals the factors motivated the respondents to save.

**Table 4.10 - Factors Motivated to Save**

| <b>Motivational Factors</b>                              | <b>Mean Rank</b> |
|--|------------------|
| I save as I fear of unforeseen circumstances             | 2.68             |
| I save for medical emergency                             | 2.16             |
| I save for the benefit of my family financial future     | 2.66             |
| My saving habit was influenced by information from media | 3.93             |
| I save to achieve financial freedom                      | 3.57             |

**Source: Computed**

**Table 4.10 (a) - Kendall's Coefficient of Concordance**

|             |      |
|-------------|------|
| Kendall's W | .211 |
|-------------|------|

The respondents were asked to rank the items with highest importance given a rank of 1 and the lowest importance given to the item with a rank of 5. The findings show that, with regard to savings, there are several reasons why the respondents want to save. The mean table shows that among the 5 items the lowest mean rank is found for “I save for medical emergency”. It shows that the respondents give highest importance for their health. The lowest importance is given for “My savings habit is influenced by information from media” with the mean rank of 3.93. Kendall’s co-efficient of concordance (W) have been used to find the extent of similarity among the ranking of the respondents. The Kendall’s W value is 0.211 which shows that there is less similarity among the respondents in the order of assigning importance to the factors that motivated them to save.

#### 4.11 LEVEL OF INVESTMENT ON PREFERRED INVESTMENT AVENUES

The investment avenues preferred by the respondents is discussed in the table 4.11. Descriptive analysis is used to find the mean ratings for the level of investment. Ratings were assigned for each factor from very low to very high. The ratings is assigned as 5 for ‘very high’, 4 for ‘high’, 3 for ‘moderate’, 2 for ‘low’, and 1 for ‘very low’. The mean ratings were found out for each factor, indicating that higher the value more will be the level of Investment.

**Table 4.11- Descriptive Statistics – Level of Investment**

| <b>Investment Avenues</b>  | <b>N</b> | <b>Minimum</b> | <b>Maximum</b> | <b>Mean</b> | <b>S.D</b> |
|----------------------------|----------|----------------|----------------|-------------|------------|
| Bank deposits              | 375      | 1.00           | 5.00           | 3.6480      | 1.1181     |
| Post Office deposits       | 375      | 1.00           | 5.00           | 2.6133      | 1.4037     |
| Private financial Deposits | 375      | 1.00           | 5.00           | 2.7413      | 1.2602     |
| LIC Funds                  | 375      | 1.00           | 5.00           | 2.9147      | 1.2488     |
| Industrial Securities      | 375      | 1.00           | 5.00           | 2.2187      | 1.2324     |
| Land and Building          | 375      | 1.00           | 5.00           | 3.0000      | 1.3183     |
| Jewellery                  | 375      | 1.00           | 5.00           | 3.2187      | 1.1770     |

**Source: Computed**

The above table states that the bank deposits(3.6480) is the most important investment factor preferred by the respondents, followed by the land and building (3.0000) which falls on the moderate level of investment. The lowest mean rating is given to the industrial securities (2.2187), because of lack of knowledge about the technicalities of the capital market. It is found that the standard deviation value is low for bank deposits, implies that it is the main avenue considered for investment.

#### 4.12 PERSONAL FACTORS VS LEVEL OF INVESTMENT

The level of investment score is found out by adding the ratings given for each item given under investment avenues. These scores will indicate their level of investment. Higher the score, higher the investment level and lower the score, lower the investment level.

ANOVA and t-test have been applied to test the significant difference among the groups of selected personal factors with respect to the level of investment on various investment avenues.

**H<sub>0</sub>:** “The level of investment scores do not differ significantly among the groups of selected personal factors”.

**Table 4.12 - Personal Factors Vs Level of Investment**

| Personal Factors          | Particulars        | Level of Investment Score |      |     | t     | F      | Sig |
|---------------------------|--------------------|---------------------------|------|-----|-------|--------|-----|
|                           |                    | Mean                      | S.D  | No. |       |        |     |
| Gender                    | Male               | 20.05                     | 5.95 | 271 | 1.559 |        | Ns  |
|                           | Female             | 21.15                     | 6.66 | 104 |       |        |     |
| Age                       | 58-61 yrs          | 20.90                     | 6.10 | 103 | -     | 3.581  | *   |
|                           | 62-65 yrs          | 21.32                     | 5.83 | 131 |       |        |     |
|                           | 66-69 yrs          | 18.84                     | 5.98 | 82  |       |        |     |
|                           | 70-74 yrs          | 19.36                     | 6.81 | 59  |       |        |     |
| Educational Qualification | Up to School Level | 17.60                     | 5.67 | 102 |       | 10.289 | **  |
|                           | Graduation         | 21.44                     | 6.06 | 142 |       |        |     |
|                           | Post Graduation    | 20.92                     | 6.21 | 71  |       |        |     |
|                           | Professional       | 21.80                     | 5.80 | 60  |       |        |     |

| Personal Factors                                      | Particulars                           | Level of Investment Score |             |            | t     | F      | Sig |
|---|---------------------------------------|---------------------------|-------------|------------|-------|--------|-----|
|   |                                       | Mean                      | S.D         | No.        |       |        |     |
| Area of residence                                     | Urban                                 | 20.43                     | 6.16        | 236        | 5.428 | 2.870  | Ns  |
|   | Rural                                 | 21.53                     | 5.48        | 66         |       |        |     |
|   | Semi-urban                            | 19.05                     | 6.58        | 73         |       |        |     |
| Kind of living arrangement                            | Living with children                  | 19.50                     | 6.36        | 76         | 5.428 | 0.613  | Ns  |
|   | Living with spouse                    | 20.60                     | 6.73        | 73         |       |        |     |
|   | Living with family                    | 20.55                     | 5.68        | 201        |       |        |     |
|   | Living alone                          | 20.68                     | 7.60        | 25         |       |        |     |
| Type of Residence                                     | Own                                   | 21.10                     | 6.00        | 313        | 5.428 |        | **  |
|   | Rental                                | 16.61                     | 5.61        | 62         |       |        |     |
| Monthly income after retirement (Rs)                  | Below 10000                           | 16.27                     | 5.26        | 49         | 5.428 | 18.897 | **  |
|   | 10000 - 20000                         | 18.95                     | 5.46        | 118        |       |        |     |
|   | 20001 - 30000                         | 20.88                     | 5.95        | 77         |       |        |     |
|   | Above 30000                           | 22.84                     | 6.09        | 131        |       |        |     |
| Savings per month (Rs)                                | Below 5000                            | 17.56                     | 5.71        | 153        | 5.428 | 27.679 | **  |
|   | 5001- 10000                           | 21.56                     | 5.07        | 117        |       |        |     |
|   | 10001 - 20000                         | 20.52                     | 4.83        | 42         |       |        |     |
|   | Above 20000                           | 24.78                     | 6.62        | 63         |       |        |     |
| present savings habit with the money at your disposal | High [>70% of money at disposal]      | 27.15                     | 5.75        | 62         | 5.428 | 78.588 | **  |
|   | Medium [40%-70% of money at disposal] | 20.47                     | 4.85        | 170        |       |        |     |
|   | Low [<40% of money at disposal]       | 17.27                     | 5.30        | 143        |       |        |     |
| <b>Total</b>  |                                       | <b>20.35</b>              | <b>6.16</b> | <b>375</b> |       |        |     |

Ns - Not significant \* - significant at 5% level \*\* - Significant at 1% level

The mean scores were found out for male and female respondents separately. The mean score for female respondents were 21.15 which is higher than the male respondents. Among different age groups the mean score is found to be high (21.32) for the age group 62 – 65 years. The lowest mean score (18.84) is found for the age group of

66-69 years. It is observed from the mean scores that the respondents below 65 years have scored higher compared to the respondents above 65 years. The average scores are found to be high (21.80) for professionally qualified respondents. The mean scores are found to be more or less equal in respect of area of residence and kind of living arrangement.

The average scores are found to be high (21.10) for the respondents living in own houses. The mean scores are found to be high (22.84) among the respondents whose monthly income is above Rs.30, 000. The highest mean score (24.78) is found for the respondents who save more than Rs.20, 000 per month. The mean scores are found to be high (27.15) for the present level of savings habit which is more than 70 per cent of money at the disposal.

The ANOVA result shows that there is a significant difference among the personal factors, namely, age, education, monthly income, savings per month and the present savings habit with regard to level of investment. Hence the null hypothesis is rejected. In case of area of residence and kind of living arrangement the null hypothesis is accepted.

The t-test result shows that there is no significant difference among the gender and the level of investment. Hence the null hypothesis is accepted. The mean score vary significantly among the type of residence, hence the hypothesis is rejected.

#### **4.13 EMPLOYMENT ASPECTS VS LEVEL OF INVESTMENT**

ANOVA and t-test have been applied to find the significant difference between the employment aspects and the level of investment on various investment avenues.

**H<sub>0</sub>:** “The level of investment scores do not differ significantly based on the employment aspects”.

**Table 4.13 - Employment Aspects Vs Level of Investment**

| Factors                              | Particulars          | Level of Investment Score |             |            | t     | F     | Sig |
|--------------------------------------|----------------------|---------------------------|-------------|------------|-------|-------|-----|
|                                      |                      | Mean                      | S.D         | No.        |       |       |     |
| Occupation held                      | Private Employee     | 20.45                     | 6.48        | 164        | .250  |       | Ns  |
|                                      | Government Employee  | 20.28                     | 5.92        | 211        |       |       |     |
| Retirement status                    | Regular Retirement   | 20.26                     | 5.72        | 254        | 0.449 |       | Ns  |
|                                      | Voluntary Retirement | 20.56                     | 7.02        | 121        |       |       |     |
| Years since retired from job (years) | Less than 5          | 20.52                     | 5.87        | 145        |       | 2.411 | Ns  |
|                                      | 5-10                 | 20.13                     | 5.64        | 125        |       |       |     |
|                                      | 11-15                | 18.81                     | 5.14        | 52         |       |       |     |
|                                      | More than 15         | 21.96                     | 8.41        | 53         |       |       |     |
| Retirement benefits Received         | Yes                  | 20.08                     | 5.79        | 263        | 1.343 |       | Ns  |
|                                      | No                   | 21.01                     | 6.94        | 112        |       |       |     |
| Present employment status            | Not Employed         | 19.96                     | 5.85        | 199        |       | 0.871 | Ns  |
|                                      | Part-time Employed   | 20.84                     | 5.72        | 67         |       |       |     |
|                                      | Full-time Employed   | 20.78                     | 6.95        | 109        |       |       |     |
| <b>Total</b>                         |                      | <b>20.35</b>              | <b>6.16</b> | <b>375</b> |       |       |     |

Ns - Not significant \* - Significant at 5% level \*\* - Significant at 1% level

With regards to occupation held before retirement the mean scores are found to be more or less equal for both the government and private employees. The average scores are found to be high (21.96) among the respondents who have retired more than 15 years from job. The mean score is found to be more or less equal in respect of retirement status, retirement benefits and the present employment status.

The ANOVA result shows that there is no significant difference among the level of investment with years since retired form job and present employment status. Hence the null hypothesis is accepted.

The t-test result shows that there is no significant difference among the level of investment and the occupation held, retirement status and the retirement benefits received. Hence the null hypothesis is accepted.

#### **4.14 FACTORS INFLUENCE THE PREFERRED INVESTMENT**

Descriptive analysis is used to find the mean ratings for the level of influenced factors. Ratings were assigned for each factor from strongly agree to strong disagree. The ratings are assigned as 5 for ‘strong agree’, 4 for ‘agree’, 3 for ‘neural’, 2 for ‘disagree’, and 1 for ‘strongly disagree’. The mean ratings were found out for each factor, indicating that higher the values more will be the level of influence.

**Table 4.14 - Descriptive Statistics – Level of Influence on Preferred Investment**

| <b>Influencing factors</b>                | <b>N</b> | <b>Minimum</b> | <b>Maximum</b> | <b>Mean</b> | <b>S.D</b> |
|---|----------|----------------|----------------|-------------|------------|
| High interest return                      | 375      | 1.00           | 5.00           | 3.7467      | 1.0709     |
| Security of investment                    | 375      | 1.00           | 5.00           | 3.8747      | .9907      |
| Lesser risk                               | 375      | 1.00           | 5.00           | 3.8080      | .9509      |
| Liquidity                                 | 375      | 1.00           | 5.00           | 3.6133      | .9959      |
| Safety of money                           | 375      | 1.00           | 5.00           | 4.1973      | .8674      |
| Easy Investment                           | 375      | 1.00           | 5.00           | 3.9200      | .9098      |
| Easy Withdrawals                          | 375      | 1.00           | 5.00           | 4.1547      | .8258      |
| Market Stability                          | 375      | 1.00           | 5.00           | 3.7840      | .8707      |
| Social Prestige Value                     | 375      | 1.00           | 5.00           | 3.6907      | 1.0002     |
| Past performance                          | 375      | 1.00           | 5.00           | 3.5600      | 1.0243     |
| Future security                           | 375      | 1.00           | 5.00           | 4.1707      | .8669      |
| Quality service                           | 375      | 1.00           | 5.00           | 4.0773      | .9057      |
| Recommended by friends and family members | 375      | 1.00           | 5.00           | 3.7387      | .9871      |

**Source: Computed**



The factor “safety of money” is rated as the highest influencing factor with a mean value of 4.1973 and the lowest mean value (3.5600) is given to the “past performance” factor, which is not mostly preferred by the respondents for selecting a particular investment avenue. Therefore the results of the above table highlights that certain factors like future security (4.1707), easy withdrawals (4.1547), security of Investment (8.3747), high interest rate (3.7467) etc makes a significant impact while deciding the investment avenues.

#### 4.15 Personal Factors VS Level of Influence on Preferred Investment

The level of influence score is found out by adding the ratings given per each item on the factors influenced on the preferred investment. These scores will indicate their level of influence. Higher the score, higher the influence level and lower the score, lower the influence level.

ANOVA and t-test are applied to find the significant difference among the personal factors in the level of influence on preferred investment.

**H<sub>0</sub>:** “The level of influence scores do not differ significantly among the groups of selected personal factors”.

**Table 4.15- Personal Factors Vs Level of Influence on Preferred Investment**

| Factors                   | Particulars        | Level of Influence Score |      |     | t     | F     | Sig |
|---------------------------|--------------------|--------------------------|------|-----|-------|-------|-----|
|                           |                    | Mean                     | S.D  | No. |       |       |     |
| Gender                    | Male               | 50.22                    | 7.60 | 271 | 0.476 |       | Ns  |
|                           | Female             | 50.64                    | 8.20 | 104 |       |       |     |
| Age (years)               | 58-61              | 51.96                    | 6.32 | 103 |       | 4.722 | **  |
|                           | 62-65              | 51.05                    | 7.70 | 131 |       |       |     |
|                           | 66-69              | 48.72                    | 8.72 | 82  |       |       |     |
|                           | 70-74              | 48.17                    | 8.07 | 59  |       |       |     |
| Educational Qualification | Up to School Level | 48.09                    | 9.03 | 102 |       | 4.144 | **  |
|                           | Graduation         | 50.90                    | 7.42 | 142 |       |       |     |
|                           | Post Graduation    | 51.55                    | 7.09 | 71  |       |       |     |
|                           | Professional       | 51.38                    | 6.23 | 60  |       |       |     |

| Factors   | Particulars                           | Level of Influence Score |             |            | t     | F      | Sig |
|---|---------------------------------------|--------------------------|-------------|------------|-------|--------|-----|
|   |                                       | Mean                     | S.D         | No.        |       |        |     |
| Area of residence                                     | Urban                                 | 50.28                    | 7.35        | 236        |       | 9.942  | **  |
|   | Rural                                 | 53.44                    | 6.82        | 66         |       |        |     |
|   | Semi-urban                            | 47.70                    | 8.89        | 73         |       |        |     |
| Kind of living arrangement                            | Living with children                  | 49.71                    | 8.66        | 76         |       | 0.522  | Ns  |
|   | Living with spouse                    | 49.88                    | 8.73        | 73         |       |        |     |
|   | Living with family                    | 50.80                    | 6.93        | 201        |       |        |     |
|   | Living alone                          | 49.84                    | 8.49        | 25         |       |        |     |
| Type of Residence                                     | Own                                   | 50.61                    | 7.52        | 313        | 1.558 |        | Ns  |
|   | Rental                                | 48.94                    | 8.83        | 62         |       |        |     |
| Monthly income after retirement (Rs)                  | Below 10000                           | 46.31                    | 8.76        | 49         |       | 5.760  | **  |
|   | 10000 - 20000                         | 50.31                    | 7.89        | 118        |       |        |     |
|   | 20001 - 30000                         | 51.65                    | 8.32        | 77         |       |        |     |
|   | Above 30000                           | 51.09                    | 6.39        | 131        |       |        |     |
| Savings per month (Rs)                                | Below 5000                            | 47.57                    | 8.43        | 153        |       | 11.931 | **  |
|   | 5001- 10000                           | 52.34                    | 7.18        | 117        |       |        |     |
|   | 10001 -.20000                         | 51.95                    | 7.78        | 42         |       |        |     |
|   | Above 20000                           | 52.25                    | 4.60        | 63         |       |        |     |
| present savings habit with the money at your disposal | High [>70% of money at disposal]      | 53.16                    | 5.41        | 62         |       | 10.763 | **  |
|   | Medium [40%-70% of money at disposal] | 51.09                    | 7.47        | 170        |       |        |     |
|   | Low [<40% of money at disposal]       | 48.22                    | 8.43        | 143        |       |        |     |
| <b>Total</b>  |                                       | <b>50.34</b>             | <b>7.76</b> | <b>375</b> |       |        |     |

Ns - Not significant \* - Significant at 5% level \*\* - Significant at 1% level

It is evident from the above table that the mean scores are found to be more or less equal in respect of the male and female respondents. Among the different age groups the mean score is higher (51.96 and 51.38) for the age group of 58-61 years and 62-65 years respectively. Regards the education, post graduation and professionals scores the highest (51.55 and 51.38). In case of area of residence, kind of living arrangement and type of residence, the respondents in rural areas, living with family in own houses scores the highest mean value of 53.44, 50.80 and 50.61 respectively.

It is observed from the mean scores that the respondents whose monthly income after retirement is above Rs.20, 000 have scored the higher (51.65) compared to the income below Rs.20, 000. The mean score is found to be high (52.34) for the savings ranging between Rs.5001 to Rs.10, 000. The mean score is found to be high (53.16) for the present savings habit which is more than 70 per cent of the money at disposal.

The ANOVA result shows that there is a significant difference among the selected personal factors namely, age, education, area of residence, monthly income after retirement, savings per month after retirement and the present saving habits. Hence the null hypothesis is rejected at 1 per cent level of significance. The average score does not vary with the kind of living arrangement. Hence, the null hypothesis is accepted.

The t-test result shows that there is no significant difference among the average score of gender and type of residence. Hence, the null hypothesis is accepted.

The results reveal that the personal factors, namely, age, education, area of residence, monthly income, monthly savings and present saving habits have significantly varied in the association with the level of influenced factors on preferred investment.

#### **4.16 Employment Aspects Vs Level of Influence on Preferred Investment**

ANOVA and t-test are applied to find the significant difference between the employment aspects and the level of influence on the preferred investment factors.

**H<sub>0</sub>:** “The level of influence scores do not differ significantly based on the employment aspects.”

**Table 4.16 - Employment aspects Vs Level of Influence on Preferred Investment**

| Employment aspects           | Particulars          | Level of Influence Score |             |            | t     | F     | Sig |
|------------------------------|----------------------|--------------------------|-------------|------------|-------|-------|-----|
|                              |                      | Mean                     | S.D         | No.        |       |       |     |
| Occupation held              | Private Employee     | 50.63                    | 7.32        | 164        | 0.655 |       | Ns  |
|                              | Government Employee  | 50.10                    | 8.10        | 211        |       |       |     |
| Retirement status            | Regular Retirement   | 50.31                    | 7.94        | 254        | 0.076 |       | Ns  |
|                              | Voluntary Retirement | 50.38                    | 7.42        | 121        |       |       |     |
| Years since retired from job | Less than 5 years    | 52.61                    | 6.64        | 145        |       | 7.349 | **  |
|                              | 5-10 years           | 48.54                    | 8.94        | 125        |       |       |     |
|                              | 11-15 years          | 49.06                    | 7.56        | 52         |       |       |     |
|                              | More than 15 years   | 49.62                    | 6.37        | 53         |       |       |     |
| Retirement benefits Received | Yes                  | 49.83                    | 8.09        | 263        | 1.960 |       | *   |
|                              | No                   | 51.54                    | 6.83        | 112        |       |       |     |
| Present employment status    | Not Employed         | 49.49                    | 7.93        | 199        |       | 2.714 | Ns  |
|                              | Part-time Employed   | 51.75                    | 6.91        | 67         |       |       |     |
|                              | Full-time Employed   | 51.01                    | 7.84        | 109        |       |       |     |
| <b>Total</b>                 |                      | <b>50.34</b>             | <b>7.76</b> | <b>375</b> |       |       |     |

**Ns - Not significant \* - Significant at 5% level \*\* - Significant at 1% level**

There is no much variation in the average scores with regards to the occupation held before retirement and the retirement status. The average score is found to be high (52.61) for the respondents who retired less than five years from the job. The mean score is found to be high (51.54) for those who do not receive any retirement benefits. As per the present employment status after retirement the part time employed respondents scores the highest (51.75).

It is observed from the ANOVA results that there is a significant difference between the in the years since retired from job. Hence, the null hypothesis is rejected. In case of the present employment status, the null hypothesis framed is accepted.

The t-test result shows that no significant differences have been found in the average score for the occupation held and the retirement status. Hence, the null hypothesis is accepted. The mean score significantly differ with regard to the retirement benefits received after retirement. Hence, the null hypothesis is rejected.

#### **4.17 FACTOR ANALYSIS FOR FACTORS INFLUENCING INVESTMENT**

The general purpose of factor analysis is to find a method of summarizing the information contained in a number of original variables in to a smaller set of new composite dimensions (Factors) with minimum loss of information. It tries to identify and define the underlying dimensions in the original variables. The Factor Analysis technique is applied in this study to find out the underlying dimensions in the set of statements relating to the factors influencing investment of the retired households in Coimbatore.

Factor analysis usually proceeds in four steps:

1. First, the correlation matrix for all variables is computed. Variables that do not appear to be related to other variables can be identified from the matrix. The relevance of the factor model can also be calculated.
2. Factor extraction, the number of factors necessary to represent the data and the method of calculating them must be determined. At this step, how well the chosen model fits the data is also ascertained.
3. Rotation focuses on transforming the factors to make them more interpretable.
4. Scores for each factor can be computed for each case. These scores are then used for further analysis.

The set of 13 statements (items) which measure the factors influencing investment has been used to find the underlying factors in it.

### Step 1:

Correlation matrix (Appendix I) for the variables, item1 to item 13, was analyzed initially for possible inclusion in Factor Analysis.

Since one of the goals of the factor analysis is to obtain 'factors' that help explain these correlations, the variables must be related to each other for the factor model to be appropriate. A closer examination of the correlation matrix may reveal what are the variables which do not have any relationship. Usually a correlation value of 0.3 (absolute value) is taken as sufficient to explain the relation between variables. All the variables from 1 to 13 have been retained for further analysis. Further, two tests are applied to the resultant correlation matrix to test whether the relationship among the variables is significant or not.

**Table 4.17 (a) - KMO and Bartlett's Test**

|  |                    |          |
|--|--------------------|----------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. |                    | .887     |
| Bartlett's Test of Sphericity                    | Approx. Chi-Square | 1734.546 |
|  | Df                 | 78       |
|  | Sig.               | **       |

**\*\* - Significant at 1% level (P<0.01)**

Bartlett's Test of Sphericity was used to test whether the correlation matrix (Appendix I) is an identity matrix. The test value (1734.546) and the significance level (P<.01) indicate that the correlation matrix is not an identity matrix, i.e., there exists correlations between the variables.

Kaiser-Meyer-Olkin (KMO) test is a measure of sampling adequacy. Higher the value of KMO (at least above 0.5) measure is closer to 1, and then it is good to use factor analysis. The value of test statistic is given above as 0.887 which means the factor analysis for the selected variables is found to be appropriate to the data.

### Step 2

The next step is to determine the method of factor extraction, number of initial factors and the estimates of factors. Principal Components Analysis (PCA) is used to

extract factors. PCA is a method used to transform a set of correlated variables into a set of uncorrelated variables (here factors) so that the factors are unrelated and the variables selected for each factor are related. Next PCA is used to extract the number of factors required to represent the data given below. For this study, 13 variables (items) each with a variance of 1 then the total variability that can potentially be extracted are equal to 13 times 1. The variance accounted for by successive factors is summarized as follows:

**Table 4.17 (b) - Total Variance Explained**

| Component | Initial Eigen values |               |              | Extraction Sums of Squared Loadings (Rotated) |               |              |
|-----------|----------------------|---------------|--------------|---|---------------|--------------|
|           | Total                | % of Variance | Cumulative % | Total   | % of Variance | Cumulative % |
| 1         | 5.329                | 40.995        | 40.995       | 3.541   | 27.237        | 27.237       |
| 2         | 1.277                | 9.826         | 50.821       | 3.066   | 23.584        | 50.821       |
| 3         | .964                 | 7.416         | 58.237       |   |               |              |
| 4         | .831                 | 6.390         | 64.627       |   |               |              |
| 5         | .770                 | 5.925         | 70.552       |   |               |              |
| 6         | .657                 | 5.050         | 75.602       |   |               |              |
| 7         | .606                 | 4.663         | 80.265       |   |               |              |
| 8         | .549                 | 4.222         | 84.488       |   |               |              |
| 9         | .486                 | 3.736         | 88.224       |   |               |              |
| 10        | .480                 | 3.693         | 91.917       |   |               |              |
| 11        | .388                 | 2.988         | 94.905       |   |               |              |
| 12        | .354                 | 2.724         | 97.629       |   |               |              |
| 13        | .308                 | 2.371         | 100.000      |   |               |              |

**Source: Computed**

From the table given above, in the second column it is found that the variance on the new factors that were successively extracted. In the third column, these values are expressed as a percent of the total variance. Factor 1 account for about 41 percent of the total variance, factor 2 about 10 percent, and so on. As expected, the sum of the Eigen values is equal to the number of variables. The third column contains the cumulative

variance extracted. The variances extracted by the factors are called the *Eigen values*. Only 2 factors are retained with Eigen values greater than 1. The total variance explained by the 2 factor model in the original set of variables is (50.08 per cent).

The table shown below gives the Component Matrix or Factor Matrix where PCA extracted 2 factors. These are all coefficients used to express a standardized variable in terms of the factors. These coefficients are called factor loadings, since they indicate how much weight is assigned to each factor. Factors with large coefficients (in absolute value) for a variable are closely related to that variable. For example, Factor 1 is the factor with largest loading (0.692) for the item, namely “**Liquidity**”. These are all the correlations between the factors and the variables, Hence the correlation between this item and Factor 1 is 0.692. Thus the factor matrix is obtained. These are the initially obtained estimates of factors.

**Table 4.17 (c) - Component Matrix**

| <b>Factors</b>                            | <b>Component</b> |          |
|---|------------------|----------|
|   | <b>1</b>         | <b>2</b> |
| Liquidity                                 | .692             | .192     |
| Easy Withdrawals                          | .686             | -.067    |
| Future security                           | .681             | -.119    |
| Safety of money                           | .675             | .230     |
| Easy Investment                           | .673             | .245     |
| Market Stability                          | .672             | -.128    |
| Security of investment                    | .658             | .452     |
| Social Prestige Value                     | .655             | -.356    |
| Lesser risk                               | .647             | .221     |
| Quality service                           | .640             | -.243    |
| Past performance                          | .630             | -.414    |
| Recommended by friends and family members | .574             | -.417    |
| High interest return                      | .373             | .556     |

**Extraction Method: Principal Component Analysis.**

**2 components extracted.**



### Step 3

The Component matrix obtained in the extraction phase indicates the relationship between the factors and the individual variables. Further to identify meaningful factors based on this matrix. The rotation phase of the factor analysis is used which attempts to transfer initial matrix into one that is easier to interpret. It is called the rotation of the factor matrix. The Rotated Factor Matrix with varimax rotation (Table titled Rotated Component Matrix) is given in Table 4.17 (d) where each factor identifies itself with a few set of variables. The variables which identify with each of the factors were sorted in the decreasing order and are highlighted against each column and row.

**Table 4.17 (d) - Rotated Component Matrix**

| <b>Factors</b>                            | <b>Component</b> |             |
|---|------------------|-------------|
|   | <b>1</b>         | <b>2</b>    |
| Past performance                          | <b>.746</b>      | .109        |
| Social Prestige Value                     | <b>.726</b>      | .169        |
| Recommended by friends and family members | <b>.706</b>      | .069        |
| Quality service                           | <b>.639</b>      | .244        |
| Future security                           | <b>.588</b>      | .364        |
| Market Stability                          | <b>.587</b>      | .351        |
| Easy Withdrawals                          | <b>.557</b>      | .406        |
| Security of investment                    | .192             | <b>.775</b> |
| High interest return                      | -.090            | <b>.663</b> |
| Easy Investment                           | .340             | <b>.631</b> |
| Safety of money                           | .352             | <b>.620</b> |
| Liquidity                                 | .390             | <b>.604</b> |
| Lesser risk                               | .337             | <b>.595</b> |

**Extraction Method: Principal Component Analysis.**

**Rotation Method: Varimax with Kaiser Normalization.**

**Rotation converged in 3 iterations.**

#### Step 4

Normally, from the factor results arrived above, factor score coefficients can be calculated for all variables (since each factor is a linear combination of all variables) which are then used to calculate the factor scores for each individual. Since PCA is used in extraction of initial factors, all methods will result in estimating same factor score coefficients. However, for the study, original values of the variables were retained for further analysis and factor scores were thus obtained by adding the values (ratings given by the respondents) of the respective variables for that particular factor, for each respondent.

**Table 4.17 (e)**

**Factors identified against statements relating to the Factors influencing investment.**

| <b>Statements</b>                         | <b>Factors identified</b> |
|---|---------------------------|
| Past performance                          | Dependability             |
| Social Prestige Value                     |                           |
| Recommended by friends and family members |                           |
| Quality service                           |                           |
| Future security                           |                           |
| Market Stability                          |                           |
| Easy Withdrawals                          |                           |
| Security of investment                    | Risk & Return             |
| High interest return                      |                           |
| Easy Investment                           |                           |
| Safety of money                           |                           |
| Liquidity                                 |                           |
| Lesser risk                               |                           |

**Source : Computed**

It is clear from the table that 13 variables in the data has been reduced to 2 factor model and each factor may be identified with the corresponding variables as shown above.

#### 4.18 CHANGES IN EXPENDITURE PATTERN AFTER RETIREMENT

Descriptive analysis is used to find the mean ratings for the changes in consumption expenditure. Ratings were assigned for each item from highly decreased to highly increased. The ratings have been assigned as 5 for ‘highly increased’, 4 for ‘increased’, 3 for ‘neutral’, 2 for ‘decreased’, and 1 for ‘highly decreased’.

**Table 4.18 - Descriptive Statistics – Changes in Expenditure Pattern**

| <b>Expenditure</b>                         | <b>N</b> | <b>Minimum</b> | <b>Maximum</b> | <b>Mean</b> | <b>S.D</b> |
|--|----------|----------------|----------------|-------------|------------|
| Food and Daily Necessities                 | 375      | 2.00           | 5.00           | 3.8533      | .8759      |
| Clothing                                   | 375      | 1.00           | 5.00           | 3.5973      | .8929      |
| Transport expenses                         | 375      | 1.00           | 5.00           | 3.4587      | 1.0510     |
| Entertainment and Leisure                  | 375      | 1.00           | 5.00           | 3.3867      | 1.0405     |
| Health Care                                | 375      | 1.00           | 5.00           | 3.9120      | .9193      |
| Religious activities and festivals         | 375      | 1.00           | 5.00           | 3.6293      | .9912      |
| Personal Insurance/Savings                 | 375      | 1.00           | 5.00           | 3.3520      | 1.0717     |
| Reading Materials & Education              | 375      | 1.00           | 5.00           | 3.2160      | 1.1808     |
| New home, home repairs and household items | 375      | 1.00           | 5.00           | 3.0053      | 1.1423     |
| Gifts and Cash contributions               | 375      | 1.00           | 5.00           | 2.9440      | 1.0442     |

**Source: Computed**

The results indicated that the spending on health care increased with a mean value of 3.9120, since the health care expenditure is positively correlated with age, the older retirees greatly increased the amount of money spent on their health care. The findings also indicate that the older spend relatively high on food and daily necessities (3.8533), Religious activities and festivals (3.6293), clothing (3.5973) etc which falls between the ranging from neutral to increased. Conversely they spend a lesser amount on Gifts and cash contributions (2.9440).

#### 4.19 PERSONAL FACTORS VS CHANGES IN EXPENDITURE

ANOVA and t-test have been applied to find whether significant difference exist in changes in expenditure pattern and the selected groups of personal factors.

**H<sub>0</sub>:** “The average expenditure scores do not vary significantly among the groups of selected personal factors”.

**Table 4.19 - Personal Factors Vs Changes in Expenditure**

| Personal factors           | Particulars          | Consumption expenditure Score |      |     | t     | F      | Sig |
|----------------------------|----------------------|-------------------------------|------|-----|-------|--------|-----|
|                            |                      | Mean                          | S.D  | No. |       |        |     |
| Gender                     | Male                 | 34.17                         | 6.02 | 271 | 0.936 |        | Ns  |
|                            | Female               | 34.84                         | 6.57 | 104 |       |        |     |
| Age (years)                | 58-61                | 35.00                         | 7.11 | 103 |       | 2.578  | Ns  |
|                            | 62-65                | 35.07                         | 5.61 | 131 |       |        |     |
|                            | 66-69                | 33.22                         | 5.64 | 82  |       |        |     |
|                            | 70-74                | 33.22                         | 6.09 | 59  |       |        |     |
| Educational Qualification  | Up to School Level   | 31.92                         | 5.41 | 102 |       | 10.927 | **  |
|                            | Graduation           | 34.51                         | 5.57 | 142 |       |        |     |
|                            | Post Graduation      | 35.07                         | 7.19 | 71  |       |        |     |
|                            | Professional         | 37.28                         | 6.05 | 60  |       |        |     |
| Area of residence          | Urban                | 34.76                         | 6.50 | 236 |       | 1.426  | Ns  |
|                            | Rural                | 33.86                         | 4.99 | 66  |       |        |     |
|                            | Semi-urban           | 33.49                         | 6.01 | 73  |       |        |     |
| Kind of living arrangement | Living with children | 33.57                         | 5.90 | 76  |       | .558   | Ns  |
|                            | Living with spouse   | 34.74                         | 5.73 | 73  |       |        |     |
|                            | Living with family   | 34.47                         | 6.06 | 201 |       |        |     |
|                            | Living alone         | 34.72                         | 8.85 | 25  |       |        |     |

| Personal factors                                      | Particulars                           | Consumption expenditure Score |             |            | t     | F      | Sig |
|---|---------------------------------------|-------------------------------|-------------|------------|-------|--------|-----|
|   |                                       | Mean                          | S.D         | No.        |       |        |     |
| Type of Residence                                     | Own                                   | 35.09                         | 6.08        | 313        | 5.340 |        | **  |
|   | Rental                                | 30.66                         | 5.31        | 62         |       |        |     |
| Monthly income after retirement (Rs)                  | Below 10000                           | 30.47                         | 4.40        | 49         |       | 17.368 | **  |
|   | 10000 - 20000                         | 33.07                         | 5.16        | 118        |       |        |     |
|   | 20001 - 30000                         | 34.55                         | 6.04        | 77         |       |        |     |
|   | Above 30000                           | 36.85                         | 6.62        | 131        |       |        |     |
| Savings per month (Rs)                                | Below 5000                            | 31.83                         | 5.39        | 153        |       | 34.181 | **  |
|   | 5001 - 10000                          | 34.46                         | 5.31        | 117        |       |        |     |
|   | 10001 -20000                          | 34.57                         | 5.00        | 42         |       |        |     |
|   | Above .20000                          | 40.14                         | 6.30        | 63         |       |        |     |
| present savings habit with the money at your disposal | High [>70% of money at disposal]      | 40.00                         | 6.35        | 62         |       | 52.743 | **  |
|   | Medium [40%-70% of money at disposal] | 34.69                         | 5.02        | 170        |       |        |     |
|   | Low [<40% of money at disposal]       | 31.51                         | 5.56        | 143        |       |        |     |
| <b>Total</b>  |                                       | <b>34.35</b>                  | <b>6.18</b> | <b>375</b> |       |        |     |

**Ns - Not significant \* - Significant at 5% level \*\* - Significant at 1% level**

The mean scores are found to be more or less equal (34.17 and 34.84) between the male and female respondents. The average score are found to be high for the age group between 58 to 65 years. In case of more than 66 years the mean scores are found to be low (33.22) which shows that the changes in the consumption and expenditure after retirement varies comparatively for different age groups. The high mean are found for the professional (37.28). In respect of urban area respondents the mean score is found to be 34.76. The average scores are found to be more or less equal in respect of the kind of

living arrangement except who are living with children the mean score is 33.57. As far as the type of residence is considered, the mean score is high (35.09) for those who live in own houses. The mean scores are found to be high (36.85) for the retired households with the monthly income above Rs.30, 000 after retirement. The mean scores are found to be high (40.14) and 40.00) for those who save above Rs,20,000 per month and have a habit of saving more 70 per cent of money at their disposal after retirement because the saving reflects the changes in the standard of living and the quality of life.

The ANOVA results have shown that there is a significant difference among the personal factors, namely, education, monthly income, savings per month and the present savings habit. Hence the null hypothesis is rejected. In the case of age, area of residence and the kind of living arrangement the null hypothesis is accepted.

The t-test result shows that there is a significant difference with the type of residence at 1% level. Hence the null hypothesis is rejected. The mean score does not vary significantly with regards to the gender. Hence the null hypothesis is accepted.

Irrespective of the personal factors, namely, education, monthly income, savings per month, present savings habit and the type of residence, the retired households have differed in their consumption expenditure.

#### **4.20 EMPLOYMENT ASPECTS VS CHANGES IN EXPENDITURE**

ANOVA and t-test is applied with to find the significant difference between the employment aspects and the changes in the expenditure after retirement.

**H<sub>0</sub>:** “The average expenditure scores do not differ significantly based on the employment aspects”.

**Table 4.20 - Employment Aspects Vs Expenditure Score**

| Employment aspects           | Particulars          | Consumption & expenditure Score |      |            | t     | F | Sig |
|------------------------------|----------------------|---------------------------------|------|------------|-------|---|-----|
|                              |                      | Mean                            | S.D  | No.        |       |   |     |
| Occupation held              | Private Employee     | 34.46                           | 6.82 | 164        | 0.283 |   | Ns  |
|                              | Government Employee  | 34.27                           | 5.64 | 211        |       |   |     |
| Retirement status            | Regular Retirement   | 34.08                           | 5.48 | 254        | 1.254 |   | Ns  |
|                              | Voluntary Retirement | 34.93                           | 7.42 | 121        |       |   |     |
| Years since retired from job | Less than 5 years    | 34.73                           | 5.09 | 145        | 1.465 |   | Ns  |
|                              | 5-10 years           | 33.69                           | 5.93 | 125        |       |   |     |
|                              | 11-15 years          | 33.73                           | 6.72 | 52         |       |   |     |
|                              | More than 15 years   | 35.51                           | 8.45 | 53         |       |   |     |
| Retirement benefits Received | Yes                  | 34.07                           | 5.73 | 263        | 1.359 |   | Ns  |
|                              | No                   | 35.02                           | 7.10 | 112        |       |   |     |
| Present employment status    | Not Employed         | 33.61                           | 5.41 | 199        | 5.137 |   | **  |
|                              | Part-time Employed   | 34.01                           | 6.15 | 67         |       |   |     |
|                              | Full-time Employed   | 35.92                           | 7.20 | 109        |       |   |     |
| <b>Total</b>                 |                      | 34.35                           | 6.18 | <b>375</b> |       |   |     |

**Ns - Not significant \* - Significant at 5% level \*\* - Significant at 1% level**

It is observed from the above table that there is not much variation in the average scores among the occupation held and the retirement status. The mean scores are found to be high (35.51) for the respondents who retired more than fifteen years from the job. The average mean score is found to be high (35.02) for those who does not receive any retirement benefits. Regards the present employment status the mean score is found to be high (35.92) for the respondents who are full time employed after retirement.

The ANOVA results have shown that the mean score does not vary significantly with regards to the years since retired form job. Hence, the null hypothesis is accepted. In the case of present employment status the null hypothesis is rejected.

The t-test reveals that the mean score does not vary significantly with regards to the occupation held, retirement status and the retirement benefits. Hence, the null hypothesis is accepted.

#### **4.21 FACTOR ANALYSIS FOR EXPENDITURE PATTERN**

Similar to the factor analysis done for investment, the items relating to consumption and expenditure pattern were factor analyzed. The Factor Analysis technique is applied in this study to find out the underlying dimensions in the set of statements relating to the consumption and expenditure pattern of the retired households in Coimbatore.

Factor analysis usually proceeds in four steps:

1. First, the correlation matrix for all variables is computed. Variables that do not appear to be related to other variables can be identified from the matrix. The relevance of the factor model can also be calculated.
2. Factor extraction, the number of factors necessary to represent the data and the method of calculating them must be determined. At this step, how well the chosen model fits the data is also ascertained.
3. Rotation focuses on transforming the factors to make them more interpretable.
4. Scores for each factor can be computed for each case. These scores are then used for further analysis.

The set of 10 statements (items) which measure the factors influencing investment has been used to find the underlying factors in it.

##### **Step 1:**

Correlation matrix (Appendix II) for the variables, item1 to item 10, was analyzed initially for possible inclusion in Factor Analysis.



Since one of the goals of the factor analysis is to obtain 'factors' that help to explain these correlations, the variables must be related to each other for the factor model to be appropriate. A closer examination of the correlation matrix may reveal what are the variables which do not have any relationship. Usually a correlation value of 0.3 (absolute value) is taken as sufficient to explain the relation between variables. All the variables from 1 to 10 have been retained for further analysis. Further, two tests are applied to the resultant correlation matrix to test whether the relationship among the variables is significant or not.

**Table 4.21 (a) - KMO and Bartlett's Test**

|  |                    |          |
|--|--------------------|----------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. |                    | .830     |
| Bartlett's Test of Sphericity                    | Approx. Chi-Square | 1089.431 |
|  | df                 | 45       |
|  | Sig.               | **       |

**\*\* - Significant at 1% level (P<0.01)**

The KMO and Bartlett's test of sphericity test were used for the sampling adequacy norms. Bartlett's Test of Sphericity is used to test whether the correlation matrix (Appendix II) is an identity matrix. The test value (1089.431) and the significance level (P<.01) indicate that the correlation matrix is not an identity matrix, i.e., there exists correlations between the variables.

Kaiser-Meyer-Olkin (KMO) test is a measure of sampling adequacy. Higher the value of KMO (at least above 0.5) measure is closer to 1, and then it is good to use factor analysis. The value of test statistic is given above as 0.830 which means the factor analysis for the selected variables is found to be appropriate to the data.

## **Step 2**

Principal Components Analysis (PCA) is used to extract factors. As mentioned earlier, PCA is a method used to transform a set of correlated variables into a set of uncorrelated variables (here factors) so that the factors are unrelated and the variables selected for each factor are related. Next PCA is used to extract the no. of factors required to represent the data given below.

For the study, the 10 variables (items) each with a variance of 1 then the total variability that can potentially be extracted is equal to 10 times 1. The variances accounted for by successive factors are summarized as follows:

**Table 4.21 (b) - Total Variance Explained**

| Component | Initial Eigen values |               |              | Extraction Sums of Squared Loadings (Rotated) |               |              |
|-----------|----------------------|---------------|--------------|---|---------------|--------------|
|           | Total                | % of Variance | Cumulative % | Total   | % of Variance | Cumulative % |
| 1         | 3.763                | 37.634        | 37.634       | 2.714   | 27.136        | 27.136       |
| 2         | 1.534                | 15.337        | 52.971       | 2.584   | 25.835        | 52.971       |
| 3         | .974                 | 9.738         | 62.710       |   |               |              |
| 4         | .742                 | 7.416         | 70.126       |   |               |              |
| 5         | .672                 | 6.722         | 76.848       |   |               |              |
| 6         | .628                 | 6.278         | 83.126       |   |               |              |
| 7         | .543                 | 5.426         | 88.551       |   |               |              |
| 8         | .412                 | 4.125         | 92.676       |   |               |              |
| 9         | .390                 | 3.903         | 96.580       |   |               |              |
| 10        | .342                 | 3.420         | 100.000      |   |               |              |

**Source: Computed**

From the table given above, in the second column we find the variance on the new factors that were successively extracted. In the third column, these values are expressed as a percent of the total variance. Factor 1 account for about 38 percent of the total variance, factor 2 about 15 percent, and so on. As expected, the sum of the Eigen values is equal to the number of variables. The third column contains the cumulative variance extracted. The variances extracted by the factors are called the *Eigen values*. Only 2 factors are retained with Eigen values greater than 1. The total variance explained by the 2 factor model in the original set of variables is (52.971%).

The table shown below gives the Component Matrix or Factor Matrix where PCA extracted 2 factors. These are all coefficients used to express a standardized variable in terms of the factors. These coefficients are called factor loadings, since they indicate how much weight is assigned to each factor. Factors with large coefficients (in absolute value) for a variable are closely related to that variable. For example, Factor 1 is the factor with largest loading (0.731) for the item, namely “**Entertainment and Leisure**”. These are all the correlations between the factors and the variables, Hence the correlation between this Statement and Factor 1 is 0.731. Thus the factor matrix is obtained. These are the initially obtained estimates of factors.

**Table 4.21(c) -Component Matrix**

| <b>Factors</b>                             | <b>Component</b> |          |
|--|------------------|----------|
|  | <b>1</b>         | <b>2</b> |
| Entertainment and Leisure                  | .731             | .061     |
| Transport expenses                         | .701             | .358     |
| Clothing                                   | .687             | .408     |
| Religious activities and festivals         | .654             | .067     |
| New home, home repairs and household items | .617             | -.534    |
| Reading Materials & Education              | .613             | -.354    |
| Food and daily necessacities               | .607             | .493     |
| Gifts and Cash contributions               | .600             | -.541    |
| Personal Insurance/Savings                 | .553             | -.273    |
| Health Care                                | .223             | .459     |

**Extraction Method: Principal Component Analysis.**

**2 components extracted.**

### Step 3

The Component matrix obtained in the extraction phase indicates the relationship between the factors and the individual variables. Further to identify meaningful factors based on this matrix. The rotation phase of the factor analysis is used which attempts to transfer initial matrix into one that is easier to interpret. It is called the rotation of the factor matrix. The Rotated Factor Matrix with varimax rotation (Table titled Rotated Component Matrix) is given in Table 4.21 (d) where each factor identifies itself with a few set of variables. The variables which identify with each of the factors were sorted in the decreasing order and are highlighted against each column and row.

**Table 4.21 (d) - Rotated Component Matrix**

| <b>Factors</b>                             | <b>Component</b> |             |
|--|------------------|-------------|
|  | <b>1</b>         | <b>2</b>    |
| New home, home repairs and household items | <b>.815</b>      | .035        |
| Gifts and Cash contributions               | <b>.807</b>      | .018        |
| Reading Materials & Education              | <b>.688</b>      | .163        |
| Personal Insurance/Savings                 | <b>.589</b>      | .181        |
| Food and daily necessities                 | .103             | <b>.775</b> |
| Clothing                                   | .220             | <b>.768</b> |
| Transport expenses                         | .264             | <b>.742</b> |
| Entertainment and Leisure                  | .490             | <b>.545</b> |
| Religious activities and festivals         | .429             | <b>.497</b> |
| Health Care                                | -.152            | <b>.487</b> |

**Extraction Method: Principal Component Analysis.**

**Rotation Method: Varimax with Kaiser Normalization.**

**Rotation converged in 3 iterations.**

#### Step 4

Normally, from the factor results arrived above, factor score coefficients can be calculated for all variables (since each factor is a linear combination of all variables) which are then used to calculate the factor scores for each individual. Since PCA is used in extraction of initial factors, all methods will result in estimating same factor score coefficients. However, for the study, original values of the variables were retained for further analysis and factor scores were thus obtained by adding the values (ratings given by the respondents) of the respective variables for that particular factor, for each respondent.

**Table 4.21 (e)**

**Factors identified against statements relating to the expenditure of the respondents**

| <b>Statements</b>                          | <b>Factors identified</b> |
|--|---------------------------|
| New home, home repairs and household items | Standard                  |
| Gifts and Cash contributions               |                           |
| Reading Materials & Education              |                           |
| Personal Insurance/Savings                 |                           |
| Food and daily necessities                 | Essential                 |
| Clothing                                   |                           |
| Transport expenses                         |                           |
| Entertainment and Leisure                  |                           |
| Religious activities and festivals         |                           |
| Health Care                                |                           |

**Source: Computed**

It is clear from the table that 10 variables in the data are reduced to 2 factor model and each factor may be identified with the corresponding variables as shown above.

## 4.22 CORRELATION ANALYSIS

Correlation analysis helps in determining the degree of relationship between two or more variables. It refers to the techniques used in measuring the closeness of the relationship between the variables. The following table depicts the correlation between level of investment score, level of influence on investment score and the expenditure score.

**Table 4.22 - Correlations**

| <b>Particulars</b>        | <b>Level of Investment Score</b> | <b>Level of Influence Score</b> | <b>Expenditure Score</b> |
|---------------------------|----------------------------------|---------------------------------|--------------------------|
| Level of Investment Score | 1.000                            | .340(**)                        | .546(**)                 |
| Level of Influence Score  | .340(**)                         | 1.000                           | .315(**)                 |
| Expenditure Score         | .546(**)                         | .315(**)                        | 1.000                    |

**\*\* Correlation is significant at the 0.01 level.**

Correlations were found out between level of investment, level of influence on investment and the expenditure scores. Correlation results show that there is a moderate correlation between all the three factors. The lowest correlation is 0.315 lies between the level of influence and expenditure and the highest correlation is 0.546 lies between level of investment and expenditure. All the factors are positively correlated with each other and are significant at 1 per cent level.

Therefore a proper balance among the 3 categories is needed. Because of rising inflation, the purchasing power of money is decreasing at an accelerated pace. Earnings and savings are no longer enough to provide for the future. In order to maintain the standard of living, finance has to be actively managed.

## 4.23 PURCHASE BEHAVIOUR OF THE RETIRED HOUSEHOLDS

With the ever-increasing penetration of internet and social media, the purchasing behaviour of the retired households has changed dramatically. Urbanization is taking place at a dramatic pace and is influencing the life style and buying behaviour of the consumers. Purchase behaviour is the sum total of a consumers' attitudes, preferences, intentions and decisions regarding the consumer's behaviour in the market place when purchasing a product or service.

The table below reveals the present purchasing behaviour of the respondents towards the various factors. 20 statements regarding the purchase behaviour were rated by the respondents. Descriptive analysis is used to find the mean ratings for the various factors of the present purchasing behaviour. Ratings were assigned for each factor, namely 1 for “strongly disagree”, 2 for “disagree”, 3 for “Neutral”, 4 for “agree” and 5 for “strongly agree”. Thus the ratings will indicate higher the value, more is the involvement.

**Table 4.23 - Descriptive Statistics**

| <b>Factors</b>  | <b>N</b> | <b>Minimum</b> | <b>Maximum</b> | <b>Mean</b> | <b>S.D</b> |
|---|----------|----------------|----------------|-------------|------------|
| I am financially independent to purchase any products or services | 375      | 1.00           | 5.00           | 4.0827      | .9844      |
| I depend on my children/spouse when I buy something               | 375      | 1.00           | 5.00           | 3.4880      | 1.2385     |
| Generally my children decide about what to buy                    | 375      | 1.00           | 5.00           | 3.2613      | 1.2522     |
| I usually manage to carry my point with my family members         | 375      | 1.00           | 5.00           | 3.7040      | 1.0897     |
| I often ask my spouse or children opinion before buying something | 375      | 1.00           | 5.00           | 3.7573      | 1.0980     |
| I often do shopping together with my family                       | 375      | 1.00           | 5.00           | 3.5093      | 1.2102     |
| I always purchase cheaper products                                | 375      | 1.00           | 5.00           | 2.8293      | 1.2183     |
| I prefer to purchase products when offered with free gifts        | 375      | 1.00           | 5.00           | 3.0720      | 1.2529     |
| Quality is the main criteria for my purchase                      | 375      | 1.00           | 5.00           | 4.1013      | .9452      |
| My purchase focus on necessary items                              | 375      | 2.00           | 5.00           | 4.0480      | .8259      |
| I Prefer online shopping  | 375      | 1.00           | 5.00           | 2.6240      | 1.3484     |
| I pay attention to advertisement for products I am interested in  | 375      | 1.00           | 5.00           | 3.3307      | 1.1293     |

| <b>Factors</b>   | <b>N</b> | <b>Minimum</b> | <b>Maximum</b> | <b>Mean</b> | <b>S.D</b> |
|--|----------|----------------|----------------|-------------|------------|
| For expensive items, I spend a lot of time and effort making my purchase decision since it is to get the best deal | 375      | 1.00           | 5.00           | 3.6427      | .9592      |
| It is important to me to be aware of all the alternatives before buying and expensive appliances                   | 375      | 1.00           | 5.00           | 3.6773      | .9618      |
| I am interested to prefer time saving purchases  | 375      | 1.00           | 5.00           | 3.8453      | .8730      |
| I focus more on prestigious products   | 375      | 1.00           | 5.00           | 3.4480      | 1.1455     |
| I prepare a list of required items ahead of time before shopping   | 375      | 1.00           | 5.00           | 3.6960      | .9747      |
| I ensure that I purchase items which are reasonable price  | 375      | 1.00           | 5.00           | 3.6747      | .8719      |
| I did not spend of item which I do not require   | 375      | 1.00           | 5.00           | 3.5120      | .9530      |
| I always have small amount of cash to prevent impulse buying   | 375      | 1.00           | 5.00           | 3.4960      | .9531      |

**Source: Computed**

It is observed from the above analysis that the statements such as ‘quality is the main criteria for my purchase’ (4.1013), ‘I am financially independent to purchase any product or service’ (4.0827), ‘my purchase focus on necessary items’ (4.0480), scores the highest ratings. The mean ratings of these factors fall between 4 and 5 which lie between agree and strongly agree. The lowest mean scores were given to the statements such as ‘I always purchase cheaper products’ (2.82923), and ‘I prefer online shopping’ (2.6240) which lie between 2 and 3 i.e. disagree and neutral.

It is concluded that the respondents focuses mainly on the quality of the products and are financial independent to purchase any products and services. The elderly also focuses on the brand choice and less aware of the technological innovations like online shopping.



#### **4.24 FACTOR ANALYSIS FOR PURCHASE BEHAVIOUR**

The Factor Analysis technique is applied in this study to find out the underlying dimensions in the set of statements relating to the purchase behaviour of retired household in Coimbatore.

Factor analysis usually proceeds in four steps:

1. First, the correlation matrix for all variables is computed. Variables that do not appear to be related to other variables can be identified from the matrix. The relevance of the factor model can also be calculated.
2. Factor extraction, the number of factors necessary to represent the data and the method of calculating them must be determined. At this step, how well the chosen model fits the data is also ascertained.
3. Rotation focuses on transforming the factors to make them more interpretable.
4. Scores for each factor can be computed for each case. These scores are then used for further analysis.

The set of 20 statements (items) which measure the buying behaviour of respondents were used to find the underlying factors in it.

##### **Step 1:**

Correlation matrix (Appendix III) for the variables, item1 to item 20, was analyzed initially for possible inclusion in Factor Analysis.

Since one of the goals of the factor analysis is to obtain 'factors' that help explain these correlations, the variables must be related to each other for the factor model to be appropriate. A closer examination of the correlation matrix may reveal what are the variables which do not have any relationship. Usually a correlation value of 0.3 (absolute value) is taken as sufficient to explain the relation between variables. All the variables from 1 to 20 have been retained for further analysis. Further, two tests are applied to the resultant correlation matrix to test whether the relationship among the variables is significant or not.

**Table 4.24 (a) - KMO and Bartlett's Test**

|  |                    |          |
|--|--------------------|----------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. |                    | .788     |
| Bartlett's Test of Sphericity                    | Approx. Chi-Square | 1964.295 |
|  | Df                 | 190      |
|  | Sig.               | **       |

**\*\* - Significant at 1% level (P<0.01)**

One is Bartlett's test of sphericity. This is used to test whether the correlation matrix is an identity matrix. i.e., all the diagonal terms in the matrix are 1 and the off diagonal terms in the matrix are 0. In short, it is used to test whether the correlations between all the variables is 0. The test value (1964.295) and the significance level (P<.01) are given above. With the value of test statistic and the associated significance level is so small, it appears that the correlation matrix is not an identity matrix, i.e., there exists correlations between the variables.

Another test is Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy. This test is based on the correlations and partial correlations of the variables. If the test value, or KMO measure is closer to 1, then it is good to use factor analysis. If KMO is closer to 0, then the factor analysis is not a good idea for the variables and data. The value of test statistic is given above as 0.788 which means the factor analysis for the selected variables is found to be more appropriate to the data.

**Step 2:**

The next step is to determine the method of factor extraction, number of initial factors and the estimates of factors. Here Principal Components Analysis (PCA) is used to extract factors. PCA is a method used to transform a set of correlated variables into a set of uncorrelated variables (here factors) so that the factors are unrelated and the variables selected for each factor are related. Next PCA is used to extract the number of factors required to represent the data.

The results from principal components analysis are given below.

To start with, in the correlation matrix, where the variances of all variables are equal to 1.0. Therefore, the total variance in that matrix is equal to the number of

variables. For the study, 30 variables (items) each with a variance of 1 then the total variability that can potentially be extracted is equal to 24 times 1. The variance accounted for by successive factors would be summarized as follows:

**Table 4.24 (b) - Total Variance Explained**

| Component | Initial Eigen values |               |              | Extraction Sums of Squared Loadings (Rotated) |               |              |
|-----------|----------------------|---------------|--------------|---|---------------|--------------|
|           | Total                | % of Variance | Cumulative % | Total   | % of Variance | Cumulative % |
| 1         | 4.449                | 22.247        | 22.247       | 2.847   | 14.233        | 14.233       |
| 2         | 2.543                | 12.717        | 34.964       | 2.640   | 13.201        | 27.434       |
| 3         | 1.584                | 7.921         | 42.885       | 1.930   | 9.651         | 37.086       |
| 4         | 1.440                | 7.202         | 50.087       | 1.917   | 9.586         | 46.672       |
| 5         | 1.076                | 5.378         | 55.465       | 1.759   | 8.793         | 55.465       |
| 6         | .954                 | 4.769         | 60.235       |   |               |              |
| 7         | .891                 | 4.454         | 64.689       |   |               |              |
| 8         | .825                 | 4.123         | 68.812       |   |               |              |
| 9         | .794                 | 3.969         | 72.781       |   |               |              |
| 10        | .726                 | 3.632         | 76.413       |   |               |              |
| 11        | .641                 | 3.207         | 79.620       |   |               |              |
| 12        | .608                 | 3.038         | 82.658       |   |               |              |
| 13        | .569                 | 2.844         | 85.502       |   |               |              |
| 14        | .551                 | 2.753         | 88.255       |   |               |              |
| 15        | .457                 | 2.286         | 90.541       |   |               |              |
| 16        | .451                 | 2.253         | 92.793       |   |               |              |
| 17        | .399                 | 1.996         | 94.790       |   |               |              |
| 18        | .365                 | 1.823         | 96.612       |   |               |              |
| 19        | .354                 | 1.770         | 98.382       |   |               |              |
| 20        | .324                 | 1.618         | 100.000      |   |               |              |

**Source: Computed**

From the table given above, in the second column (Initial Eigen values) the column titled 'Variance', the variance on the new factors that are successively extracted. In the third column, these values are expressed as a percent of the total variance. Factor 1 accounts for about 22 percent of the total variance, factor 2 about 13 percent, factor 3 about 8 percent and so on. As expected, the sum of the Eigen values is equal to the number of variables. The third column contains the cumulative variance extracted. The variances extracted by the factors are called the Eigen values.

. We can retain only five factors with Eigen values greater than 1. In essence, this is like saying that, unless a factor extracts at least as much as the equivalent of one original variable, we drop it. This criterion is probably the one most widely used and is followed in this study also. The total variance explained by the five factor model in the original set of variables is given in the last column (55.46).

**Table 4.24 (c) - Component Matrix**

| Behaviour Factors  | Component |        |        |        |        |
|--|-----------|--------|--------|--------|--------|
|  | 1         | 2      | 3      | 4      | 5      |
| It is important to me to be aware of all the alternatives before buying and expensive appliances                   | 0.747     | -0.040 | 0.168  | -0.094 | 0.075  |
| I ensure that I purchase items which are reasonable price  | 0.633     | 0.188  | -0.129 | -0.374 | -0.022 |
| I focus more on prestigious products   | 0.606     | -0.117 | 0.125  | 0.295  | 0.241  |
| For expensive items, I spend a lot of time and effort making my purchase decision since it is to get the best deal | 0.606     | 0.028  | 0.271  | -0.116 | 0.099  |
| My purchase focus on necessary items   | 0.577     | -0.085 | -0.276 | -0.290 | -0.011 |
| I prepare a list of required items ahead of time before shopping   | 0.565     | -0.115 | -0.276 | -0.018 | 0.231  |
| Quality is the main criteria for my purchase   | 0.555     | -0.288 | -0.315 | 0.143  | -0.064 |
| I am interested to prefer time saving purchases  | 0.519     | -0.116 | -0.143 | 0.099  | 0.305  |
| I am financially independent to purchase any products or services  | 0.502     | -0.458 | 0.042  | 0.137  | -0.356 |

| Behaviour Factors   | Component |        |        |        |        |
|---|-----------|--------|--------|--------|--------|
|   | 1         | 2      | 3      | 4      | 5      |
| I did not spend of item which I do not require                    | 0.495     | 0.172  | -0.128 | -0.375 | 0.049  |
| I Prefer online shopping  | 0.473     | -0.237 | 0.371  | 0.436  | 0.035  |
| Generally my children decide about what to buy                    | 0.087     | 0.775  | -0.110 | 0.145  | 0.180  |
| I depend on my children/spouse when I buy something               | -0.136    | 0.568  | -0.273 | 0.313  | 0.482  |
| I often do shopping together with my family                       | 0.353     | 0.555  | -0.018 | 0.118  | -0.348 |
| I often ask my spouse or children opinion before buying something | 0.261     | 0.543  | -0.310 | 0.370  | -0.249 |
| I always purchase cheaper products                                | -0.075    | 0.467  | 0.382  | -0.219 | 0.034  |
| I prefer to purchase products when offered with free gifts        | -0.003    | 0.365  | 0.673  | -0.141 | -0.038 |
| I pay attention to advertisement for products I am interested in  | 0.475     | -0.002 | 0.489  | 0.285  | 0.184  |
| I always have small amount of cash to prevent impulse buying      | 0.432     | 0.275  | 0.033  | -0.489 | -0.009 |
| I usually manage to carry my point with my family members         | 0.412     | 0.355  | -0.022 | 0.262  | -0.486 |

**Extraction Method: Principal Component Analysis. Five components extracted.**

The table shown above gives the Component Matrix or Factor Matrix where PCA extracted 5 factors. These are all coefficients used to express a standardized variable in terms of the factors. These coefficients are called factor loadings, since they indicate how much weight is assigned to each factor. Factors with large coefficients (in absolute value) for a variable are closely related to that variable. For example, Factor 1 is the factor with largest loading (0.747) for the item, namely “It is important to me to be aware of all the alternatives before buying and expensive appliances”. These are all the correlations between the factors and the variables, Hence the correlation between this item and Factor 1 is 0.747. Thus the factor matrix is obtained. These are the initially obtained estimates of factors.

### Step 3

Although the factor matrix (Table titled **Component Matrix**) obtained in the extraction phase indicates the relationship between the factors and the individual variables, it is usually, difficult to identify meaningful factors based on this matrix. Often variables and factors do not appear to be correlated in any interpretable pattern. Most factors are correlated with many variables. Since the idea of factor analysis is to identify the factors that meaningfully summarize the sets of closely related variables, the Rotation phase of the factor analysis attempts to transfer initial matrix into one that is easier to interpret. It is called the rotation of the factor matrix. There are several methods available for rotating factor matrix. The one used in this analysis is Varimax Rotation, the most commonly used method, which attempts to minimize the number of variables that have high loadings on a factor. This should enhance the interpretability of the factors. The Rotated Factor Matrix (Table titled Rotated Component Matrix) using Varimax rotation is given in Table 4.24 (d) where each factor identifies itself with a few set of variables. The variables which identify with each of the factors were sorted in the decreasing order and are highlighted against each column and row.

**Table 4.24 (d) Rotated Component Matrix**

| Behaviour Factors  | Component    |              |        |        |        |
|--|--------------|--------------|--------|--------|--------|
|  | 1            | 2            | 3      | 4      | 5      |
| I ensure that I purchase items which are reasonable price  | <b>0.738</b> | 0.110        | 0.030  | 0.188  | -0.018 |
| I always have small amount of cash to prevent impulse buying                                     | <b>0.668</b> | -0.003       | -0.217 | 0.097  | -0.002 |
| I did not spend of item which I do not require   | <b>0.650</b> | 0.049        | 0.012  | 0.090  | 0.036  |
| My purchase focus on necessary items   | <b>0.623</b> | 0.094        | 0.293  | 0.066  | -0.115 |
| It is important to me to be aware of all the alternatives before buying and expensive appliances | <b>0.539</b> | 0.534        | 0.024  | 0.096  | -0.132 |
| I prepare a list of required items ahead of time before shopping                                 | <b>0.448</b> | 0.301        | 0.403  | -0.005 | 0.092  |
| I Prefer online shopping   | -0.085       | <b>0.742</b> | 0.062  | 0.103  | -0.192 |

| Behaviour Factors  | Component |              |               |              |               |
|--|-----------|--------------|---------------|--------------|---------------|
|  | 1         | 2            | 3             | 4            | 5             |
| I pay attention to advertisement for products I am interested in   | 0.054     | <b>0.734</b> | -0.182        | 0.061        | -0.010        |
| I focus more on prestigious products   | 0.189     | <b>0.680</b> | 0.194         | 0.061        | 0.047         |
| For expensive items, I spend a lot of time and effort making my purchase decision since it is to get the best deal | 0.454     | <b>0.482</b> | -0.126        | 0.051        | -0.090        |
| I am interested to prefer time saving purchases  | 0.320     | <b>0.419</b> | 0.329         | -0.042       | 0.135         |
| I prefer to purchase products when offered with free gifts   | 0.031     | 0.186        | <b>-0.753</b> | 0.070        | -0.020        |
| I always purchase cheaper products   | 0.114     | -0.036       | <b>-0.609</b> | 0.072        | 0.168         |
| Quality is the main criteria for my purchase   | 0.277     | 0.290        | <b>0.548</b>  | 0.155        | -0.169        |
| I usually manage to carry my point with my family members  | 0.115     | 0.156        | -0.012        | <b>0.744</b> | -0.095        |
| I often ask my spouse or childrens opinion before buying something   | 0.049     | 0.015        | 0.137         | <b>0.736</b> | 0.309         |
| I often do shopping together with my family  | 0.222     | 0.060        | -0.162        | <b>0.693</b> | 0.100         |
| I depend on my children/spouse when I buy something  | -0.108    | -0.012       | 0.033         | 0.126        | <b>0.847</b>  |
| Generally my children decide about what to buy   | 0.133     | -0.007       | -0.216        | 0.415        | <b>0.661</b>  |
| I am financially independent to purchase any products or services  | 0.121     | 0.366        | 0.321         | 0.176        | <b>-0.571</b> |

**Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 7 iterations**

#### Step 4

Normally, from the factor results arrived above, factor score coefficients can be calculated for all variables (since each factor is a linear combination of all variables) which are then used to calculate the factor scores for each individual. Since PCA is used in extraction of initial factors, all methods will result in estimating same factor score coefficients. However, for the study, original values of the variables were retained for further analysis and factor scores were thus obtained by adding the values (ratings given by the respondents) of the respective variables for that particular factor, for each respondent.

**Table 4.24 (e) Factors identified against statements relating to the purchase behaviour of respondents.**

| <b>Factors</b> | <b>Statements</b>  | <b>Factors Identified</b> |
|----------------|--|---------------------------|
| Factor 1       | I ensure that I purchase items which are reasonable price  | <b>Prudent Buying</b>     |
|                | I always have small amount of cash to prevent impulse buying   |                           |
|                | I did not spend of item which I do not require   |                           |
|                | My purchase focus on necessary items   |                           |
|                | It is important to me to be aware of all the alternatives before buying and expensive appliances                   |                           |
|                | I prepare a list of required items ahead of time before shopping   |                           |
| Factor 2       | I Prefer online shopping   | <b>Product Awareness</b>  |
|                | I pay attention to advertisement for products I am interested in   |                           |
|                | I focus more on prestigious products   |                           |
|                | For expensive items, I spend a lot of time and effort making my purchase decision since it is to get the best deal |                           |
|                | I am interested to prefer time saving purchases  |                           |
| Factor 3       | I prefer to purchase products when offered with free gifts   | <b>Quality Conscious</b>  |
|                | I always purchase cheaper products   |                           |
|                | Quality is the main criteria for my purchase   |                           |
| Factor 4       | I usually manage to carry my point with my family members  | <b>Family Involvement</b> |
|                | I often ask my spouse or children's opinion before buying something  |                           |
|                | I often do shopping together with my family  |                           |
| Factor 5       | I depend on my children/spouse when I buy something  | <b>Buying dependency</b>  |
|                | Generally my children decide about what to buy   |                           |
|                | I am financially independent to purchase any products or services  |                           |

**Extraction Method: Principal Component Analysis**

It is clear from the table that 20 variables in the data is reduced to 5 factor model and each factor is identified with the corresponding variables as shown above.