# PERSONALITY TRAITS AND ENTREPRENEURIAL CHARACTERISTICS OF WOMEN ENTREPRENEURS IN TAMIL NADU

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## Abstract

Indian women are patient by nature and do have the capacity to accept things. Normally they have confidence in the male members of the family. Their culture makes them good subordinates and executors of the decisions made by male members. In general, women are capable of working hard physically in all contexts and mostly at all ages. With these in-built characteristics, women have proved themselves fit for any occupation. Apart from these general characteristics they also exhibit certain traits required for success as entrepreneurs.

The purpose of this study is to consider the personality traits of women entrepreneurs in Tamil Nadu. For the purpose of this study fourteen common personality characteristics are taken as the basis. Entrepreneurship in the present study is assessed with reference to five important aspects namely self confidence, task-orientation, risk bearing, leadership and originality.

## Introduction

It is likely that there are some social and psychological factors which hinder the responsiveness and development of the poor sections of the people due to their continued deprivation over a long period of time of economic opportunities.

Some psychologists, such as Albert Ellis (1962) suggest that it is important to understand the way a person views or thinks about life. Others, like B.F. Skinner (1973) and William Glasser (1975) take the position that the most appropriate means of understanding a person is to observe that person's behaviour and action. Roser (1961) points out the need to be aware of the emotions or feelings of a person.

In the present study, an attempt is made to assess the personality traits of the entrepreneurs in order to determine whether they have the requisite personality dispositions to undertake activities which are independent and self-sustaining, thereby conducing to entrepreneurship. Even though the personality factors are any number, the present study is confined to only fourteen personality factors, namely information seeking, mass media and communication skills, social participation, cosmopolite-ness, level of aspiration, attitude towards self-employment, scientific orientation, decision-making ability, economic motivation, managerial ability, problem recognition, risk-orientation, urban pull and public relations (extension contact).

**Methodology for the study**

The primary data were collected by conducting a survey among women entrepreneurs in Tamil Nadu, using well structured questionnaires. The sample size of 374 was calculated by using formula $n = Z^2 * p * q * N / e^2 * (N-1) + Z^2 * p * q$ (Kothari.C.R., 2005) where n is the minimum sample size required. The 374 sample respondents were selected by using multi stage random sampling. The questionnaires were distributed to all 374 selected respondents in person by the researcher. After careful and repeated persuasion only 361 filled questionnaires were received and the remaining ones did not respond. For the purpose of final analysis 350 questionnaires were used after rejecting some of the questionnaires which were not completed properly. The non- response rate and rejection rate amounted to less than10 percent (6.4 percent). The margin of error for the present sample size of 350 was 1.454 percent. The content validity of the questionnaire was verified by a panel of experts from the fields of statistics, psychology, management, commerce and investment consultancy. The validity of criteria and validity of construct were

tested using correlation analysis. The reliability of the survey instrument was tested using Cronbach Alpha method. The standardized item alpha was 0.6879 and the Hotelling's T-square was 909.2650 and probability was 0.0000. This shows that the statements are reliable and will produce the desired result consistently.

## I Personality Traits

The fourteen personality factors mentioned above were assessed on a four-point scale which were assigned 4,3,2 and 1 marks according to the order of personality traits. The marks obtained by the respondents were used to arrive at the personality index of the respondents by using the following formula:

$$P_I = \frac{\sum_{i=1}^{n} PSi}{\sum_{i=1}^{11} MSP_i} \times 100 \qquad \ldots\ldots\ldots (1)$$

where,

$P_I$ = Personality Index

$P_S$ = Personality factors score

MSP = Maximum score of the personality factor

i ... n = Number of personality factors

## 1.1 Results and Discussion

The average scores of the different personality factors calculated for the entrepreneurs in the study area are presented in Table 1.

Table 1: Personality Traits Of The Entrepreneurs

| S. No. | Personality Traits | Average Score |
|--------|-------------------|---------------|
| 1. | Information Seeking | 3.11 |
| 2. | Mass Media Exposure | 3.96 |
| 3. | Social participation | 3.51 |
| 4. | Cosmopolite-ness | 2.16 |
| 5. | Level of aspiration | 2.96 |
| 6. | Attitude to self-employment | 4.05 |
| 7. | Scientific orientation | 2.10 |
| 8. | Decision-Making ability | 4.10 |
| 9. | Economic motivation | 2.99 |
| 10. | Managerial ability | 3.24 |
| 11. | Problem recognition | 4.00 |
| 12. | Willingness to take risks | 3.61 |
| 13. | Urban pull | 3.11 |
| 14. | Extension contact | 3.20 |
| Overall | | 3.2928 |

From Table 1 it will be observed that the entrepreneurs are very good in terms of decision-making, attitude to self-employment, problem recognition, communication skills and mass media exposure since the mean values of these personality factors are as high at 4.10, 4.05, 4.00 and 3.96 respectively. In total, the average score of the personality traits among the entrepreneurs is 3.2928.

## 1.2 Personality Index of the Entrepreneurs

The personality index of the respondents was calculated by the formula (1). The personality index for the study was classified as less than 20, 20-40, 40-60, 60-80 and 80 and above. The distribution of respondents according to the personality index is presented in Table 2,:

Table 2: Personality Traits Index of the Entrepreneurs

| S. No. | Personality Traits Index | Number of Entrepreneurs |
|--------|--------------------------|-------------------------|
| 1. | Less than 20 | 18 (5.14) |
| 2. | 20 – 40 | 83 (23.71) |
| 3. | 40 – 60 | 120 (34.29) |
| 4. | 60 – 80 | 93 (26.57) |
| 5. | 80 and above | 36 (10.29) |
| Total | | 350 (100) |

Fig.1: Personality Traits Index of the Entrepreneurs



FIGURE 3.4
PERSONALITY TRAITS INDEX OF THE RESPONDENTS

Less than 20  20 to 40  40 to 60  60 to 80  80 and above
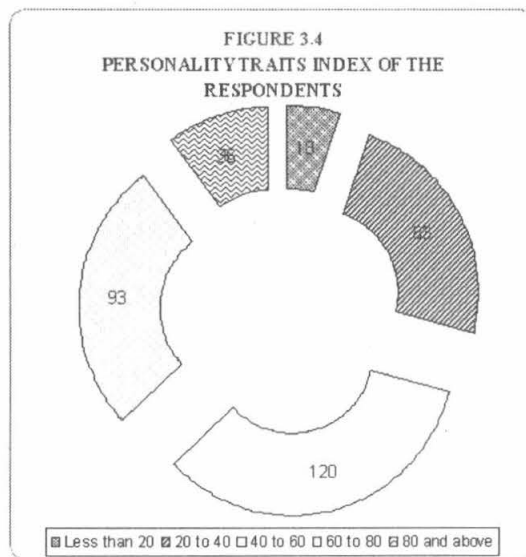
A maximum of 34.29 per cent of the total respondents have a personality index of 40-60, followed by 26.57 per cent having an index of 60-80 and 23.71 per cent having an index of 20-40. Those with an index of more than 80 constitute only 10.29 per cent to the total. Thus it is inferred that more than 70 per cent of the respondents have a personality index above 40.

## II. Entrepreneurship

Joseph Schumpeter regarded an entrepreneur as one who through new combinations of means of production introduces new goals, new methods of production, new markets and a new source of supply of manufactured goods and carries out effective organization of any industry (Sharma.R.A, 1980).

The entrepreneur always searches for a change, responds to it and exploits it as an opportunity (Druker,P.F, 1985). Thus entrepreneurship entails the ability to identify the resources and perceive their economic potential and shows a willingness to utilize these resources and to invest in their development, deferring immediate rewards in favour of future investment (Agarwal.V.K,1975).

Entrepreneurship is essentially a function. It is creativity and behaviour manifestation of a person in regard to shifting resources from areas of low productivity to higher productivity. Its traits are willingness to take risk, high economic and achievement motivation, self-confidence, problem solving disposition, adequate knowledge and skills, ability to face situations and good managerial ability (Nandapurkar.G.G, 1982). The characteristics and competencies of entrepreneurs are classified under psychological, economic, sociological and general categories by Mansfied et al (1987), as presented in Table 3 :

| Category | Characteristics | Competencies |
|---|---|---|
| Psychological | Need for achievement<br>Need for power<br>Independence, Drive,<br>propensity to take risk<br>Self-confidence and will power<br>Creativity<br>Ambition<br>Discipline<br>Recognition<br>Benevolence<br>Diligence<br>Adaptability | Initiative<br>Identifying and acting on<br>opportunities<br>Persistence<br>Seeking information<br>Concern for high quality work<br>Commitment to work contract<br>Efficiency orientation system,<br>scanning, problem solving |
| Economic | Raising finance<br>Business Experience<br>Occupational Background | Self-confidence |
| Sociological | Leadership<br>Social mobility<br>Family background | Assertiveness<br>Persuasion,<br>Use of influence,<br>Strategies |
| General | Good salesmanship<br>Pleasing personality<br>Integrity | |

The dominant characteristics of entrepreneurs are identified by Madhu Mauthy (2003) as self-confidence, perseverance, determination, energy, diligence, resourcefulness, ability to take risks, need to achieve creativity, initiative, flexibility, positive response to challenges, independence, foresight, dynamism, leadership, versatility, knowledge of product and technology, responsiveness, profit-orientation, perception and optimism.

## 2.1 Measurement of Entrepreneurship

Entrepreneurship in the present study is estimated with the help of five important aspects namely self confidence, task-orientation, risk bearing, leadership and originality. Each aspect is estimated with the help of an index. The aspects and the related variables are given in Table 4.

TABLE 4: COMPONENTS OF ENTREPRENEURSHIP INDEX

| Aspects | Components |
|---|---|
| 1. Self-confidence | Confidence<br>Optimism<br>Independence<br>Individuality |
| 2. Task-orientation | Need for achievement<br>Profit orientation<br>Future Plan<br>Imitativeness |
| 3. Risk Bearing | Business Selection<br>Challenges orientation<br>Risk learning level<br>Decision Making |
| 4. Leadership | Headship<br>Leadership<br>Sociability<br>Time Management |
| 5. Originality | Resourcefulness<br>Versatility<br>Openness of mind<br>Creativity |

The respondents were rated on a four-point scale on the component of entrepreneurship. The entrepreneurship index is developed as shown below:

$$\text{En Index} = \frac{\sum\limits_{i=1}^{350} ESi}{\sum\limits_{i=1}^{350} EMS_i} \times 100 \quad \dotfill (2)$$

where,

| | | |
|---|---|---|
| En Index | = | Entrepreneurship Index |
| Es | = | Entrepreneurship Variables score |
| EMs | = | Entrepreneurship variables maximum score |
| i = 1.... 350 | = | Number of entrepreneurship variables. |

## 2.2 Results and discussion

The average score obtained by the entrepreneurs in each component of entrepreneurship variable was calculated and the resulting average score is shown in Table 5:

Table 5: Entrepreneurship of Respondents

| S. No. | Entrepreneurship Variables | Average Score |
|---|---|---|
| 1. | Confidence | 3.93 |
| 2. | Optimism | 3.26 |
| 3. | Independence | 3.19 |
| 4. | Individuality | 4.71 |
| 5. | Need for achievement | 3.91 |
| 6. | Profit orientation | 4.39 |
| 7. | Future Plan | 3.24 |
| 8. | Initiative | 3.66 |
| 9. | Business selection | 2.15 |
| 10. | Challenge orientation | 2.96 |
| 11. | Risk taking | 4.55 |
| 12. | Decision making | 3.11 |
| 13. | Headship | 2.91 |
| 14. | Sociability | 3.15 |
| 15. | Sociability | 3.19 |
| 16. | Time management | 4.20 |
| 17. | Resourcefulness | 3.16 |
| 18. | Versatility | 2.16 |
| 19. | Openness | 3.51 |
| 20. | Creativity | 4.10 |
| Overall | | 3.472 |

The Table shows that entrepreneurship was found high in the variables namely individuality, risk taking, profit orientation, time management and creativity. The mean score values of these variables are 4.71, 4.55, 4.39, and 4.10 respectively. The overall average of variables among the entrepreneurs is 3.472.

## 2.3 Entrepreneurship Index

The entrepreneurship index was developed for each and every respondent by using the formula (2). The indices for the study were classified as less than 20, 20-40, 40-60, 60-80 and 80 and above. The distribution of the respondents according to their entrepreneurship indices are shown in Table 6:

Table 6: Entrepreneurship Index of the Respondents

| S. No. | Entrepreneurship Index | Number of Respondents |
|--------|------------------------|-----------------------|
| 1. | Less than 20 | 21 (6.00) |
| 2. | 20 – 40 | 79 (22.57) |
| 3. | 40 – 60 | 119 (34.00) |
| 4. | 60 – 80 | 99 (28.29) |
| 5. | 80 and above | 32 (9.14) |
| Total | | 350 (100) |

It will be seen from the Table that out of 350 respondents, 34 per cent are under the entrepreneurial index of 40 to 60, followed by 28.29 per cent having an index of 60 to 80. The entrepreneurs who exceed an index of 80 are 32 whereas 6 per cent of the respondents have an index below 20.
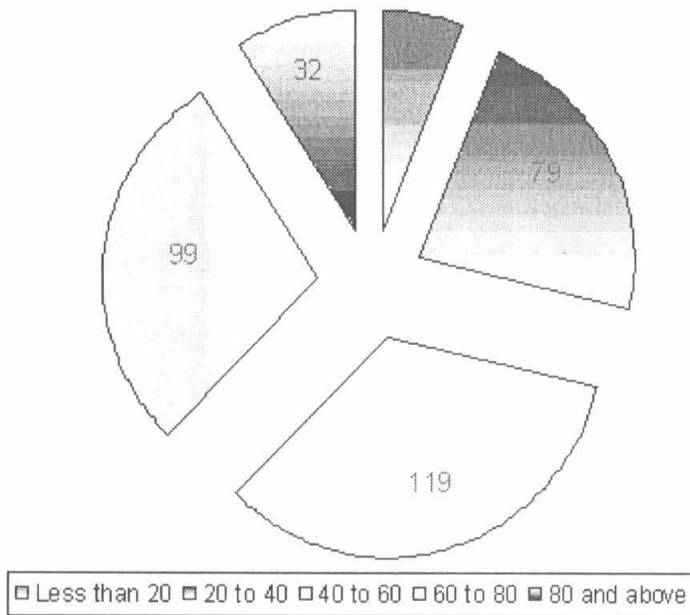
Fig.2: Entrepreneurship Index of the Respondents

## III. Linkage between Socio-economic Profile variables and Entrepreneurship Index

The study of the linkage between socio-economic variables of entrepreneurs and entrepreneurship index is essential to promote entrepreneurship among the respondents. In order to analyze the linkage, twelve profile variables are taken into account.

The entrepreneurship of the respondents is classified into five groups. The linkage between socio-economic profile variables and the entrepreneurship index is analysed with the help of the chi-square test. The computed results of chi-square values with degree of freedom and table value are shown in Table 7:

## Table 7: Linkage between Socio-economic Profile and Entrepreneurship among the Respondents

| S No. | Socio Economic Profile | Calculated Chi-square | Table value of chi-square at 5 per cent level | Inference |
|---|---|---|---|---|
| 1. | Age | 32.16 | 21.026 | Significant |
| 2. | Education | 34.96 | 15.507 | Significant |
| 3. | Caste | 6.1671 | 15.507 | Insignificant |
| 4. | Nature of Family | 7.768 | 9.488 | Insignificant |
| 5. | Marital status | 11.691 | 15.507 | Insignificant |
| 6. | Family size | 15.341 | 15.507 | Significant |
| 7. | Earning Members per family | 28.471 | 26.296 | Significant |
| 8. | Occupational background | 18.947 | 31.410 | Insignificant |
| 9. | Material Possession | 16.741 | 26.296 | Insignificant |
| 10. | Monthly income | 12.431 | 26.296 | Significant |
| 11. | Family Income per month | 10.671 | 15.507 | Significant |

It will be seen from Table 7 that the linkage between entrepreneurship and socio-economic variables namely age, education, family size, earning members, occupational background, monthly income and family income per month is significant at 5 per cent level since the calculated value of chi-square is greater than the table value of these variables. The other variables have not been significantly associated with entrepreneurship (index) (Grewal.P.S, 1990).

## 3.1 Relationship between Personality Traits and Entrepreneurship

The personality traits of the respondents are related to their psychological aspects of as reflected in how they view the enterprises, how they face risks and the like. For this, the correlation between the score of personality variables and the entrepreneurship index of the respondents is separately calculated for entrepreneurs. The computed results of Karl Pearson's correlation co-efficient of the personality variables and entrepreneurship are shown in Table 8:

Table 8: Correlation between Personality Traits and Entrepreneurship

| S. No. | Personality Variables | Correlation co-efficients |
|--------|----------------------|---------------------------|
| 1. | Information seeking | 0.1591 |
| 2. | Mass Media exposure | -0.1791 |
| 3. | Social participation | -0.1921 |
| 4. | Cosmospolite-ness | -0.1121 |
| 5. | Level of aspiration | 0.2916 |
| 6. | Attitude towards self employment | 0.1546 |
| 7. | Scientific orientation | 0.2216 |
| 8. | Decision making ability | 0.5216 |
| 9. | Economic motivation | 0.5316 |
| 10. | Managerial ability | 0.4364 |
| 11. | Problem recognition | 0.4667 |
| 12. | Willingness to take risks | 0.5516 |
| 13. | Urban pull | 0.1974 |
| 14. | Extension contact | 0.1821 |

It is evident from Table 8 that a significant correlation is identified in decision making ability, economic motivation, managerial ability, problem recognition and willingness to take risks since their correlation co-efficients of 0.5216, 0.5316, 0.4364, 0.4661, and 0.5516 are statistically significant at 5 per cent level. The above mentioned personality variables are positively related to entrepreneurship.

## Iv. Factors influencing the starting and Managing of Enterprises

The factors influencing the starting and managing of an enterprise by the respondents are economic, social, psychological and environmental. Even though the variables are many, the present study is confined to the variables, namely economic independence, prestige, employment opportunities, technical knowledge, urge to achieve, aspiration for children, financial assistance use of idle funds, self-interest, encouragement of family members, organizational skill, self employment, revival of sick unit, social status, entrepreneurial experience, family background, hereditary attributes, market potential income, more dependents, unemployment and quest for challenges. The respondents were rated in respect of the above - said 22 variables on a five point scale, namely, highly important, moderately important, not important and not at all important which were given the score value of 5,4,3,2 and 1 respectively. The factor analysis is a suitable technique to classify variables into meaningful factors.

Fred N. Kerlinger (1923) commends Factor analysis for identification and analysis of the important factors for starting and managing an enterprise (Fred N. Kerlinger, 1973). The principal factor analysis method is mathematically satisfying because it yields a mathematically unique solution. Its chief feature is the extraction of a maximum amount of variation as each factor is calculated. In other words, the first extracts the most variance and so on (Harry H. Harman,1967).

Most of the analytical methods produce results in a form that is difficult or impossible to interpret. Thurstone (1929) had argued that it was necessary to rotate factor matrices if one wanted to interpret them adequately. His view was that original factor matrices were arbitrary in the sense that an infinite number of reference frames (axes) could be found to reproduce any given 'R' matrix. In order to move the axes from the arbitrary location determined by the method of extraction to some position that is useful for interpretation of the factors for comparison with other studies, the axes are rotated. A major goal of rotation is to obtain meaningful factors that are as consistent as possible from analysis to analysis (Benjamin, Fructher, 1976). There are several methods available for factor analysis. But the principal

factor method with orthogonal varimax rotation is mostly used. Further orthogonal rotations maintain the independence of factors, that is, the angles between the axes are kept at 90 degrees. One of the final outcomes of a factor analysis is called Rotated Factor Matrix. A table of co-efficients that express the ratios between the variables and the factors is prepared. The sum of the square of the factor loadings of variables is called communalities ($h^2$).

The communality of a factor is its common factor variance. The factors with factor loadings of 0.50 or greater are considered significant factors. This limit has been chosen as the factors with less than 50 per cent common variation in the rotated factor pattern are too weak to report. In our study, the principal factor analysis method with Orthogonal Varimax Rotation has been used to identify the significant set of factors for management of the enterprise.

Before extracting the factors Bartlett's test of sphericity was used to test the null hypothesis of the variables in the population and to test the appropriateness of the factor model. The test statistic for sphericity is based on a Chi-square transformation of the determinant of the correlation matrix. Another useful statistic is the Kaiser-Meyer-Olkin (KMO) measure for sampling adequacy (Marjorie A.Pett, 2000). The estimated results of these two tests are given in Table 9:

Table 9: Results for Testing Inadequacy of Sampling

| Measure | Estimated Value |
|---|---|
| Kaiser-Meyer-Olkin (KMO) | 0.7247 |
| Bartlett's test of sphericity | 2942.7 |
| Degrees of freedom | 262 |

The Table shows that Bartlett's test is statistically significant at 5 per cent level with 262 degrees of freedom. The KMO statistic is also large (0.7247). So the factor analysis may be taken as the best fit for identifying the factors which influence the management of enterprises.

The Rotated Factor Matrix for the variables relating to quality system management of the selected small agro firms included in the study is given in Table 10. Table 10 gives the loading received by the factors under $F_1$, $F_2$, $F_3$, and $F_4$ for enterprises.

**Table 10: Factors influencing the Managing or starting of the Enterprise**

| Sl. No. | Motivation Variables | Rotated Factor Loading | | | | $h^2$ |
|---|---|---|---|---|---|---|
| | | F1 | F2 | F3 | F4 | |
| 1. | Economic Independence | 0.7578 | 0.3120 | 0.2409 | -0.1895 | 0.7655 |
| 2. | Prestige | 0.7796 | 0.2137 | -0.05894 | -0.1869 | 0.6718 |
| 3. | Employment opportunities | 0.7573 | 0.0534 | 0.1849 | 0.2334 | 0.6650 |
| 4. | Technical knowledge | 0.6763 | 0.2762 | 0.3441 | 0.2010 | 0.6925 |
| 5. | Urge to achieve | 0.5924 | 0.3849 | 0.2924 | 0.1894 | 0.6205 |
| 6. | Aspiration for children | 0.5646 | 0.2717 | -0.3091 | 0.2524 | 0.5518 |
| 7. | Financial assistance | 0.5542 | 0.3854 | -0.4306 | 0.2546 | 0.7059 |
| 8. | Use of idle funds | 0.5540 | 0.1792 | 0.4079 | -0.3924 | 0.6594 |
| 9. | Self interest | -0.218 | 0.7542 | 0.1698 | 0.3579 | 0.7733 |
| 10. | Encouragement of family members | -0.0581 | 0.7312 | 0.2127 | 0.1828 | 0.6167 |
| 11. | Organizational skill | -0.3212 | 0.5568 | 0.2895 | -0.4154 | 0.6696 |
| 12. | Self employment | 0.2598 | 0.5417 | 0.3524 | 0.4648 | 0.7012 |
| 13. | Revival of sick unit | -0.4062 | 0.5065 | -0.2926 | 0.3586 | 0.6357 |
| 14. | Social status | 0.2314 | -0.2164 | 0.6396 | 0.3192 | 0.6114 |
| 15. | Entrepreneurial Experience | 0.0329 | 0.4834 | 0.6043 | -0.3878 | 0.5166 |
| 16. | Family background | 0.1339 | 0.4841 | 0.5955 | -0.2979 | 0.5865 |
| 17. | Traditional / Hereditary | -0.2876 | 0.3013 | 0.5911 | 0.4121 | 0.6927 |
| 18. | Market potential | 0.1192 | -0.2896 | 0.2014 | 0.6739 | 0.5928 |
| 19. | Earning income | 0.2079 | -0.1834 | 0.4081 | 0.6270 | 0.6365 |
| 20. | More dependents | 0.3046 | -0.4739 | -0.3178 | 0.5249 | 0.6938 |
| 21. | Unemployment | -0.2717 | 0.4241 | 0.2898 | 0.5069 | 0.5946 |
| 22. | Challenge seeking | 0.2961 | 0.4614 | -0.2757 | 0.5078 | 0.6344 |
| | Eigen Value | 4.0033 | 4.1366 | 3.0453 | 3.2756 | |

The twenty variables included in the factor analysis resulted in four important factors that influence the respondents in starting or managing the enterprise namely (i) achievement and support factor (ii) interest factor (iii) traditional status factor and (iv) economic necessity factor. The variables, namely, economic independence, prestige, employment opportunities, technical knowledge, urge to achieve, aspiration for children, financial assistance and use of idle funds have higher factor loading and so are classified under "achievement and support" factor. Self-interest, encouragement of family members, organization skill, self-employment and revival of sick units are grouped under the interest factor because of the higher factor loading in that factor compared to other three factors.

The traditional status factor includes the variables, namely, social status, entrepreneurial experience, family background, hereditary attributes and market potential. The economic necessity factor includes more dependents, unemployment and challenge-seeking. The communality value indicates the power of variables to explain the factors altogether. The higher communality value represents the higher degree of variables to explain the factor. Based on communality values, the important variables which influence the respondents in starting and managing the enterprise are economic independence, self-interest and prestige since their communality values are 0.8532, 0.8113 and 0.7156 respectively.

## Conclusion

From the study it can be concluded that Indian women entrepreneurs are very good at decision making, attitude to self-employment, problem recognition and mass media skills. Apart from these personality characteristics they also have a high level of individuality, risk taking disposition, profit orientation, time management skills and creativity. The entrepreneurial ability of women entrepreneurs, however, mainly depends on age, education, family size, the strength of the family listed as earning members, occupational background, monthly income and family income per month. The twenty two factors that are listed as influencing the entrepreneurs in starting and managing an enterprise may be reduced to four important ones, namely (i) achievement and support factor, (ii) interest factor (iii) traditional status factor and (iv) economic necessity factor by using the factor analysis. It can be further concluded that decision making ability, economic motivation, managerial ability,

problem recognition and willingness to take risks have significant relationship with the entrepreneurship index of any individual woman entrepreneur.

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