

## **Analysis of indicators towards entrepreneurial orientation**

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### **ABSTRACT**

The study was conducted on 210 rural youth entrepreneurs of seven different ventures in Krishnagiri district of Tamil Nadu. The entrepreneurial ventures selected for the study were sericulture, mushroom production, hi-tech nurseries (polyhouse), fruit and flower nursery, fisheries, poultry farming and value addition (tamarind processing and millet-based cookies). The respondents were selected randomly based on the key information. The finalized entrepreneurial orientation index consisted of fourteen statements. Principle component analysis (PCA) and factor analysis (with varimax rotation) were carried out to group the indicators into factors based on the communalities observed. The results revealed that three factors which had more than one Eigen value were contributing 57.451 per cent variation towards entrepreneurial orientation and those factors were put under entrepreneurial competence (Factor I), external motivation (Factor II) and entrepreneurial basic (Factor III).

**Keywords:** Entrepreneurial orientation; rural youth; indicators; ventures

### **INTRODUCTION**

Rural youth entrepreneurship is the crux of an economic activity and is the prime actor in stimulating the factors of production leading to an overall economic development of the rural areas (Janani and Ravichandran 2015). Interest in youth entrepreneurship has been fuelled recently due to high level of unemployment amongst young people

and as a way to foster employment opportunities or to address social exclusion for boosting economic competitiveness and promoting regional development (Kuratko and Hodgetts 2001).

Lumpkin and Dess (1996) described the contrast between entrepreneurship and entrepreneurial orientation (EO). They suggested that an

entrepreneurial orientation (EO) represents entrepreneurial orientations that address the question of how new ventures are undertaken whereas the term entrepreneurship refers to the content of entrepreneurial decisions by addressing what is undertaken. The EO among the rural youth is highly essential to overcome the problems in agri-business especially in production and marketing of the products. The rural youth with high EO may enrich the productivity and earnings in their entrepreneurial ventures.

The personality of an entrepreneur has been measured by his level of EO. In this study EO has been operationalised as the extent to which the existence of selected indicators is perceived by the respondents as more important at a given point of time. In other words EO is the constellation of 14 indicators in this study. It is a complex phenomenon and considered as composite means of fourteen dimensions.

## METHODOLOGY

The indicators towards EO were developed to group the indicators into factors by using the principle component analysis and factor analysis (varimax rotation). The finalized EO indicators consisted of fourteen statements. Even though there exist numerous components pertaining to the EO the present study was confined to fourteen components based on judges' rating. The fourteen major indicators

considered for the study were innovation proneness, decision making behaviour, risk taking behaviour, management orientation, perception on entrepreneurial knowledge, leadership ability, self-confidence, stress management, time management, networking, planning ability, proactiveness, level of aspiration and attitude towards self-employment. Each major indicator was identified with a list of statements. The indicators were administered to analyse the EO of the rural youth by combining the statements of all major indicators into a composite index. The total scores and mean scores of all the components among the seven groups of entrepreneurs were computed separately.

The study necessitated the selection of district where the scope for agri-entrepreneurship was more. Hence Krishnagiri district of Tamil Nadu was selected for the study. Based on the discussion with scientists of Regional Research Station, Paiyur, Dr Perumal Krishi Vigyan Kendra, Elumichangiri, MYRADA Training Centre, Achattipalli, officials of department of sericulture, assistant director of horticulture, assistant director of agriculture, Krishnagiri, the predominant rural enterprises identified were those in which the rural youth were mostly involved.

Seven entrepreneurial ventures were identified. Thirty respondents were selected from each venture. Totally 210 rural youths were considered for the study.

## **RESULTS and DISCUSSION**

### **Principle component analysis of indicators towards entrepreneurial orientation**

Principle component analysis was carried out with all the fourteen indicators and the results are furnished in Table 1.

Table 1 provides the specifications of Eigen value and percentage of variance explained by the components. The components having more than one Eigen value were selected. Three factors from fourteen indicators were extracted and together they explained a total variance of 57.451 per cent towards the EO. Therefore it could be concluded that first three factors which had more than one Eigen value contributed 57.451 per cent variation towards EO.

### **Rotated factor (varimax) matrix of indicators**

The results of principle component analysis clearly indicate that there were three factors that explained the maximum variation (57.451%) in EO. The findings on factor loading of each indicator under three factors were analysed and are furnished in Table 2.

From Table 2 each factor column was scanned for identifying the indicators which were more significantly correlated with the particular factor. Thus from each factor column the indicators having factor

loadings from 0.49 to 0.70 were considered as high loading variables and more than 0.70 were considered as very high loading variables which were selected and grouped in Table 3.

The data in Table 3 further reveal the grouping of indicators under each factor with their factor loadings.

### **Factor 1**

This factor has been identified as prime factor as it explained 40.113 per cent of variation in EO. It could be inferred that under Factor 1 management orientation was found to influence the EO to greater extent with the highest factor loading of 0.808 followed by perception on entrepreneurial knowledge (0.782), proactiveness (0.775), self-confidence (0.766), attitude towards self-employment (0.697), level of aspiration (0.690), stress management (0.672), innovation proneness (0.601), time management (0.588) and networking (0.495).

Since these factors primarily indicate the entrepreneurial orientation of rural youth based on the requirements imbibed in them they have been termed as entrepreneurial competence.

### **Factor 2**

The second factor explained a variation to the extent of 10.047 per cent. Thus factors 1 and 2 together contributed

Table 1. Eigen values for entrepreneurial orientation

| Component/<br>indicator | Eigen<br>value | Percentage of<br>variance | Cumulative<br>variation (%) |
|-------------------------|----------------|---------------------------|-----------------------------|
| I                       | 5.616          | 40.113                    | 40.113                      |
| II                      | 1.407          | 10.047                    | 50.160                      |
| III                     | 1.021          | 7.291                     | 57.451                      |
| IV                      | 0.919          | 6.561                     | 64.012                      |
| V                       | 0.803          | 5.735                     | 69.747                      |
| VI                      | 0.703          | 5.024                     | 74.771                      |
| VII                     | 0.650          | 4.640                     | 79.410                      |
| VIII                    | 0.580          | 4.140                     | 83.551                      |
| IX                      | 0.527          | 3.767                     | 87.317                      |
| X                       | 0.460          | 3.289                     | 90.606                      |
| XI                      | 0.436          | 3.118                     | 93.724                      |
| XII                     | 0.339          | 2.419                     | 96.143                      |
| XIII                    | 0.291          | 2.082                     | 98.225                      |
| XIV                     | 0.249          | 1.775                     | 100.000                     |

Table 2. Rotated factor (Varimax) matrix of each indicator

| Entrepreneurial orientation<br>indicators | Factors |        |        | Communalities<br>(h <sup>2</sup> ) |
|-------------------------------------------|---------|--------|--------|------------------------------------|
|                                           | I       | II     | III    |                                    |
| Innovation proneness                      | 0.601*  | 0.263  | 0.101  | 0.440                              |
| Decision making behaviour                 | -0.076  | 0.793* | -0.028 | 0.635                              |
| Risk taking behaviour                     | 0.216   | 0.572* | 0.126  | 0.389                              |
| Management orientation                    | 0.808*  | -0.055 | 0.222  | 0.706                              |
| Perception on entrepreneurial knowledge   | 0.782*  | 0.232  | 0.026  | 0.666                              |
| Leadership ability                        | 0.105   | 0.245  | 0.816* | 0.737                              |
| Self-confidence                           | 0.766*  | 0.122  | 0.026  | 0.603                              |
| Stress management                         | 0.672*  | 0.076  | -0.352 | 0.582                              |
| Time management                           | 0.588*  | 0.335  | 0.151  | 0.480                              |
| Networking                                | 0.495*  | -0.239 | 0.486  | 0.538                              |
| Planning ability                          | 0.413   | 0.607* | 0.072  | 0.544                              |
| Proactiveness                             | 0.775*  | 0.061  | 0.176  | 0.636                              |
| Level of aspiration                       | 0.690*  | 0.143  | 0.171  | 0.526                              |
| Attitude towards self-employment          | 0.697*  | 0.193  | 0.194  | 0.560                              |
| Eigen values                              | 5.616   | 1.407  | 1.021  |                                    |
| % of variation explained                  | 40.113  | 10.047 | 7.291  |                                    |
| Cumulative % variation explained          | 40.113  | 50.160 | 57.451 |                                    |

## Indicators towards entrepreneurial orientation

Table 3. Factor-wise indicators with factor loadings

| Factors  | Indicators                              | Factor Loadings |
|----------|-----------------------------------------|-----------------|
| Factor 1 | Innovation proneness                    | 0.601           |
|          | Management orientation                  | 0.808           |
|          | Perception on entrepreneurial knowledge | 0.782           |
|          | Self-confidence                         | 0.766           |
|          | Stress management                       | 0.672           |
|          | Time management                         | 0.588           |
|          | Networking                              | 0.495           |
|          | Proactiveness                           | 0.775           |
|          | Level of aspiration                     | 0.690           |
|          | Attitude towards self-employment        | 0.697           |
| Factor 2 | Decision making behaviour               | 0.793           |
|          | Risk taking behaviour                   | 0.572           |
|          | Planning ability                        | 0.607           |
| Factor 3 | Leadership ability                      | 0.816           |

50.160 per cent variation to the EO of rural youth (Table 2). It is evident from the results that three indicators in Factor 2 viz decision making behaviour, planning ability and risk taking behaviour were found to influence the EO equally to an extent with the factor loadings of 0.793, 0.607 and 0.572 respectively.

As these factors instigate the entrepreneurial orientation of rural youth they have been termed as external motivation.

### Factor 3

From the data given in Table 2 it can be observed that the third factor explained a variation to the extent of 7.291 per cent. Thus Factors 1, 2 and 3 together contributed 57.451 per cent variation to the EO of rural youths.

One indicator in Factor 3 ie leadership ability was found to influence the EO equally to an extent with the factor loading of 0.816. As these factors instigate the entrepreneurial orientation of rural youth they have been termed as entrepreneurial basic. The indicator namely leadership ability ranked first since it had more communality ( $h^2$ ) value (0.737). It was followed by other indicators like management orientation, perception on entrepreneurial knowledge, proactiveness, decision making behaviour, self-confidence, stress management, attitude towards self-employment, planning ability, networking, level of aspiration, time management, innovation proneness and risk taking behaviour respectively with communality values of 0.706, 0.66, 0.636, 0.635, 0.603, 0.582, 0.560, 0.544, 0.538, 0.526, 0.480, 0.440 and 0.389 respectively.

Table 4. Indicators explained by the three factors

| Entrepreneurial orientation indicator   | Loading | Communality ( $h^2$ ) | Rank |
|-----------------------------------------|---------|-----------------------|------|
| Innovation proneness                    | 0.601   | 0.440                 | XIII |
| Management orientation                  | 0.808   | 0.706                 | II   |
| Perception on entrepreneurial knowledge | 0.782   | 0.666                 | III  |
| Self-confidence                         | 0.766   | 0.603                 | VI   |
| Stress management                       | 0.672   | 0.582                 | VIII |
| Time management                         | 0.588   | 0.480                 | XII  |
| Networking                              | 0.495   | 0.538                 | X    |
| Proactiveness                           | 0.775   | 0.636                 | IV   |
| Level of aspiration                     | 0.690   | 0.526                 | XI   |
| Attitude towards self-employment        | 0.697   | 0.560                 | VIII |
| Decision making behaviour               | 0.793   | 0.635                 | V    |
| Risk taking behaviour                   | 0.572   | 0.389                 | XIV  |
| Planning ability                        | 0.607   | 0.554                 | IX   |
| Leadership ability                      | 0.816   | 0.737                 | I    |

## CONCLUSION

On the whole three factors were extracted from the fourteen indicators and these factors together explained a total variance of 57.451 per cent towards EO. The EO of the rural youth was determined by three factors namely entrepreneurial competence, external motivation and entrepreneurial basic.

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