9.1 Introduction

This is the final chapter of the thesis, which recapitulates the research findings followed by thorough discussion about the broad objective. A comprehensive model for entrepreneurial success is proposed here. The theoretical and practical implications of results are also considered here. The chapter also offers directions for future research in this area.

9.2 Recapitulation of Research Findings

In summary, it can be concluded that the success of the entrepreneurs in the context of Assam is independent of their demographic profile i.e. age, gender, education, community and religion. The findings of Chapter 4 suggest that there is significant relationship between level of motivation of entrepreneurs and the level of success. The eight (8) important motivational variables are -

1) Family orientation towards business
2) Need for achievement
3) Need for power
4) To be independent / Don’t want to be in a routine job
5) Survival need / No other choice
6) Desire to help others / work for the society-nation
7) Family members are successful entrepreneurs
8) Friends are successful entrepreneurs
The findings of Chapter 5 highlight that there is significant relationship between successful entrepreneurs’ score on traits and their level of success. In other words, the higher the score on traits, higher will be the level of success. The thirteen (13) important traits are -

1) Individual smartness
2) Creativity
3) Innovativeness
4) Self efficacy /Self confidence / self belief
5) Dedication & hard-work
6) Internal locus of control / (believing that actions determine the rewards)
7) Risk taking propensity / Attitude towards risk / taking calculated Risk
8) Sincerity and commitment
9) Endurance /continuing for long time
10) Good planning
11) Ability to make decisions
12) Flexibility / adaptive to change
13) Goal oriented

It is indicated in Chapter 6 that there is significant relationship between successful entrepreneurs’ score on ‘knowledge & skills’ and their level of success. Out of eleven (11) ‘knowledge & skills’ variables, nine (9) are found to be significantly associated with the level of success of the entrepreneurs.
These variables are –

1) Communication skills
2) Product knowledge
3) Selling skills
4) Acquiring timely information
5) Understanding customer needs
6) Team management
7) Leadership skills
8) Utilizing skilled manpower
9) Previous experience

Chapter 7 indicates that there is significant relationship between the ‘economic & environmental’ variables and level of success of entrepreneurs. Out of eleven (11) ‘economic & environmental’ variables, only five (5) are found to be significantly associated with the level of success of the entrepreneurs. These variables are –

1) Power supply
2) Access to latest technology
3) Competitive pricing
4) Access to market channels
5) Access to business association
Chapter 8 reveals that there is significant relationship between support variables and the level of success of entrepreneurs. Out of six (6) support variables for successful entrepreneurs, five (5) are found to be significantly associated with the level of success. These variables are –

1) Family support
2) Friend circle / Peer group support
3) Government support for subsidy
4) Government support for supply of raw material & selling of products
5) Government support for providing technology & quality testing

9.3 Discussion about the Broad the Objective & Proposed Model for Entrepreneurial Success

At the outset of this study, it is stated that the main objective of the study is to find out the important determinants of entrepreneurial success in the context of food processing industry in Assam. Fifty eight (58) determinants of successful entrepreneurs are identified on the basis of review of literature. Out of which, five (5) variables (demographic) are found to be insignificant in the context of Assam. Remaining fifty three (53) variables are tested for their significant relationship with the level of success; forty (40) of them found to be significantly associated with the level of success.

The basic question which prompted this research is what makes a successful entrepreneur in the context of Assam. It is also expected that the findings would be easily & extensively used by the entrepreneurs as well as training institutions. The
present research finds that there are forty (40) determinants /factors / variables which lead to success. It would be difficult, rather de-motivating for the entrepreneurs to follow these forty (40) factors in order to become successful entrepreneurs. It is therefore wise to reduce these forty (40) variables to a feasible and relatively smaller number of factors. Hence, factor analysis is carried out and the researcher ended with eighteen (18) factors as given hereunder.

1. Family orientation towards business
2. Desire to be self dependent and create employment for others
3. Business friendly environment
4. Futuristic mindset
5. Sincerity and commitment
6. Creativity and adaptive to change
7. Ability to recognize highly potential business opportunity
8. Dedication and hard work
9. Endurance / Continuing for long time
10. Marketing skills
11. Operational skills
12. Previous experience and remain updated with current market information
13. Leadership skills
14. Access to latest technology
15. Competitive advantage
16. Family support
17. Access to business network
18. Government support
KMO and Bartlett's Test (Table No. 9.1) for sampling adequacy for factor analysis was conducted to confirm whether the data is suitable for factor analysis.

<table>
<thead>
<tr>
<th>Table No. 9.1: KMO and Bartlett's Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</td>
</tr>
<tr>
<td>Bartlett's Test of Sphericity</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

The table (9.1) above shows that the data are suitable for factor analysis. KMO measures (.691) for sampling adequacy is more than 0.5 which indicates that the results from factor analysis are meaningful. Similarly the Bartlett's Test of Sphericity is significant at 0.00 which is much less than 0.05 indicating that the results from factor analysis can be highly useful.

**Detail calculation of Factor Analysis is given in the Appendix**

**Regression Model**

So far the researcher has duly achieved the intended objective of the present study. However, in order to make the findings of the study more useful practically, a comprehensive model needs to be developed to answer the question as to what extent the aforesaid determinants’ can jointly influence the level of success of the entrepreneurs. Is there any correlation or interdependence between the independent variables - that is the different group of factors such as motivation, traits, knowledge & skills, economic & environmental factors and support factors? Can it be concluded that if an entrepreneur is having high score in one set of factors, would become
successful even if he/she has poor score in other sets of factors?

Or is it necessary to have equal score in all set of determinants for entrepreneurial success.

It is found from the review that a number of researchers used Regression Models to answer the above questions. Multiple Regression helps to analyze the relationship between a dependent or criterion variable and a set of independent or predictor variables. For the purpose of present study, multiple regression model is calculated in two methods in order to arrive at an appropriate model.

Table No. 9.2: Regression Model Using Enter Method in SPSS 15

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.892</td>
<td>.795</td>
<td>.782</td>
</tr>
</tbody>
</table>

Predictors: Suprtsum6, Ecosum5, Traitsum11, Motsum5, Knowsum8

The above table (9.2) indicates that the different sets of independent variables jointly describe 79.5% of entrepreneurial success. The researcher is interested to know exactly what percentage of success is described by each independent variable or what are the degrees of importance of different independent variables in describing entrepreneurial success? Accordingly, the regression model is calculated in stepwise method below (table no. 9.3)
Table No. 9.3: Regression Model Using Stepwise Method in SPSS 15

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.770</td>
<td>.592</td>
<td>.587</td>
</tr>
<tr>
<td>2</td>
<td>.844</td>
<td>.712</td>
<td>.705</td>
</tr>
<tr>
<td>3</td>
<td>.875</td>
<td>.766</td>
<td>.757</td>
</tr>
<tr>
<td>4</td>
<td>.885</td>
<td>.783</td>
<td>.772</td>
</tr>
<tr>
<td>5</td>
<td>.892</td>
<td>.795</td>
<td>.782</td>
</tr>
</tbody>
</table>

1. Predictors: (Constant), Traitsum11
2. Predictors: (Constant), Traitsum11, Suprsum6
3. Predictors: (Constant), Traitsum11, Suprsum6, Ecosum5
4. Predictors: (Constant), Traitsum11, Suprsum6, Ecosum5, Motsum5
5. Predictors: (Constant), Traitsum11, Suprsum6, Ecosum5, Motsum5, Knowsum8

The above table (9.3) indicates that only two independent variables i.e. traits and support jointly describe 71.2% of entrepreneurial success. When a model is developed for the purpose of academic and practical reference, it is imperative that the proposed model is comprehensive to address maximum variance of the independent variables and at the same time the said model should be parsimonious as well in order to avoid collinearity problem among the independent variables. The principle of parsimony is the belief that one should select the simplest model that gets the job done adequately.

**Structural Equation Modelling**

The regression models presented in table 9.3 above put the researcher in a fix as regards to the selection of appropriate model. If the researcher follows the model of parsimony by accepting model No. 2 or 3 and discards the contribution of other independent variables such as motivation and knowledge; the very purpose of the research will be
compromised and the proposed model will not be consistent with the available literature in entrepreneurship as well as with the findings of the present study. Further, the above regression models fail to answer the question as to what extent the various independent variables are interdependent. To overcome such shortcomings, earlier researchers have used Structural Equation Modelling.

Structural Equation Modeling (SEM) is used because it offers a number of advantages -

(i) SEM takes into account measurement error in the observed variables, resulting in a more accurate estimation of the model.

(ii) In contrast to other regression procedures, SEM allows for the testing of an entire model simultaneously instead of testing each bivariate relationship in a step-by-step fashion (Schumaker & Lomax, 1996). SEM therefore offers greater precision in model estimation.

(iii) By taking into account both direct and indirect effects, SEM provides an estimate of the total effect (both direct and indirect) of each independent variable on the dependent variable (Kline, 1998).

(iv) SEM provides an important statistical technique which helps to resolve the problem of multicollinearity, which is often difficult to deal with using conventional regression analysis (Rigdon, 1998).
The following path diagram depicts a basic Structural Equation Model for Entrepreneurial Success in the Context of Assam.

**Figure No. 01: Basic Structural Equation Model of Entrepreneurial Success**

**Table No. 9.4: Standardized Regression Weights of Basic SEM**

| Success <-- | Motsum8 | .097 |
| Success <-- | Traitsum13 | .396 |
| Success <-- | Knowsum9 | .203 |
| Success <-- | Ecosum5 | .167 |
| Success <-- | Suprtsum5 | -.255 |
Table No. 9.5: Correlations between Independent Variables

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecosum5 &lt;---&gt; Suprsum5</td>
<td>-.413</td>
</tr>
<tr>
<td>Knowsum9 &lt;---&gt; Ecosum5</td>
<td>.690</td>
</tr>
<tr>
<td>Traitsum13 &lt;---&gt; Knowsum9</td>
<td>.705</td>
</tr>
<tr>
<td>Motsum8 &lt;---&gt; Traitsum13</td>
<td>.491</td>
</tr>
<tr>
<td>Knowsum9 &lt;---&gt; Suprsum5</td>
<td>-.509</td>
</tr>
<tr>
<td>Traitsum13 &lt;---&gt; Suprsum5</td>
<td>-.474</td>
</tr>
<tr>
<td>Motsum8 &lt;---&gt; Suprsum5</td>
<td>-.553</td>
</tr>
<tr>
<td>Traitsum13 &lt;---&gt; Ecosum5</td>
<td>.487</td>
</tr>
<tr>
<td>Motsum8 &lt;---&gt; Ecosum5</td>
<td>.547</td>
</tr>
<tr>
<td>Motsum8 &lt;---&gt; Knowsum9</td>
<td>.611</td>
</tr>
</tbody>
</table>

From above model (Figure No. 01) and the subsequent tables (9.4 & 9.5) it can be seen that altogether this model can describe 82% of entrepreneurial success. Traits and support are negatively correlated. Success is greatly dependent on traits irrespective of support. It can be interpreted that an entrepreneur having high score on traits will require less support for becoming successful entrepreneur and an entrepreneur having low score on traits will require more support for becoming successful. Similarly, motivation and support are also negatively correlated. This means that an entrepreneur with high level of motivation can become successful without much supports. Conversely, an entrepreneur with low level of motivation will require more support to become successful. Overall, traits describe 40% of success, motivation describes 10%, knowledge & skills 20% and environmental factors 17%.
Model fitness test

The central point in analyzing structural models is the extent to which the hypothesized model “fits” or adequately describes the sample data. A model fit can be evaluated by examining several goodness of fit indices.

The $\chi^2$ measure is the most generally reported measure of model fit. However, it should also be highlighted that the $\chi^2$ statistic should not be considered in isolation because it is sensitive to both sample size and the degrees of freedom in the model and can lead to the rejection of too many models (Raykov, 1998). Byrne (2001) suggests that other goodness-of-fit statistics should also be taken into account when determining the model fit, which “take a more pragmatic approach in the evaluation process” including Chi square/degree of freedom ($\chi^2 / df$), Goodness-of-fit (GFI), Tucker Lewis Index (TLI), Comparative Fit Index (CFI) and Root Mean-Square Error of Approximation (RMSEA).
The recommended fit indices of Structural Equation Model are summarized in the table below.

**Table No. 9.6: Recommended fit indices for SEM**

<table>
<thead>
<tr>
<th>Goodness of fit Criteria</th>
<th>Acceptable</th>
<th>Recommended Values</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square/C MIN</td>
<td></td>
<td>$p &gt; .05$</td>
<td>Non-significance means the model fits the observed covariances and correlations.</td>
</tr>
<tr>
<td>Chi-square/df (CMIN/DF)</td>
<td>Less than 3.0</td>
<td>Less than 2.0</td>
<td>Values less than 2.0 indicate good model fit. Values ranging from 2.0 to 3.0 signify mediocre fit.</td>
</tr>
<tr>
<td>Goodness-of-fit (GFI)</td>
<td>0 (no fit) to 1 (perfect fit)</td>
<td>Greater than .90</td>
<td>Value 0 indicates poor model fit and values more than .90 indicate good model fit.</td>
</tr>
<tr>
<td>Comparative Fit Index (CFI)</td>
<td>0 (no fit) to 1 (perfect fit)</td>
<td>Greater than .90</td>
<td>Value 0 indicates poor model fit and values more than .90 indicate good model fit.</td>
</tr>
<tr>
<td>Tucker-Lewis Index (TLI)</td>
<td>0 (no fit) to 1 (perfect fit)</td>
<td>Greater than .90</td>
<td>Value 0 indicates poor model fit and values more than .90 indicate good model fit.</td>
</tr>
<tr>
<td>Root Mean-Square Error of Approximation (RMSEA)</td>
<td>0 to 1</td>
<td>Less than .08</td>
<td>Values less than .05 indicate good model fit. Values ranging from .05 to .08 indicate acceptable fit. Values above .08 to .10 indicate mediocre fit. Values more than .10 indicate poor fit.</td>
</tr>
</tbody>
</table>

Sources: Byrne (2001), Hair et al. (1998), and Kline (2005)

**Table No.9.7: Fitness Score of Basic SEM**

<table>
<thead>
<tr>
<th>Goodness of fit Criteria</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square (CMIN)</td>
<td>0.00</td>
</tr>
<tr>
<td>Chi-square/df (CMIN/DF)</td>
<td>0</td>
</tr>
<tr>
<td>Goodness-of-fit (GFI)</td>
<td>1</td>
</tr>
<tr>
<td>Comparative Fit Index (CFI)</td>
<td>1</td>
</tr>
<tr>
<td>Tucker-Lewis Index (TLI)</td>
<td>0.00</td>
</tr>
<tr>
<td>Root Mean-Square Error of Approximation (RMSEA)</td>
<td>.50</td>
</tr>
</tbody>
</table>
The values in the table (9.6) above, indicate that the proposed Basic model is not a good fit. Therefore, the model needs to be extended to include all the forty (40) important variables under different sets of factors causing entrepreneurial success. Hence, the following extended model is proposed to be tested.

**Figure No. 01: Extended SEM Model of Entrepreneurial Success**

EXTENDED STRUCTURAL EQUATION MODEL FOR ENTREPRENEURIAL SUCCESS

Source: Self Developed

Since the number of sample size in the present study is limited to 85 and the number of variables is 40; the extended model of entrepreneurial success could not be run successfully. An appropriate number of 200 samples shall be necessary to run this proposed model.
9.4 Contribution of the Study

(i) Theoretical Contribution

The current study identified the important factors of entrepreneurial success in the context of Assam.

**Confirmation:** The findings of the study starting from Chapter 4 to Chapter 8 confirm the existing body of knowledge in entrepreneurial success.

**Contradiction:** The findings of demographic variables are not consistent with the earlier researches and existing knowledge.

**Addition:** The present research extended the existing knowledge by making a comprehensive (including all factors) effort for predicting entrepreneurial success. The study also proposed a comprehensive model for entrepreneurial success using structural equation modeling.

(ii) Practical Contribution

(a) Implication for the Entrepreneurs

The important factors identified by this study can be useful to existing as well as upcoming entrepreneurs. These findings will guide the entrepreneurs towards success if they acquire, manage or adopt the suggested factors for entrepreneurial success. This knowledge will help the entrepreneur to recognize the importance of different contributing factors, and motivate them to seek for appropriate training & development. The Comprehensive model of entrepreneurial success proposed in this study suggests that entrepreneurs should
be aware of the importance of various factors and their association if they wish to become highly successful.

(b) Implication for the Policy Makers and Training Institutions

The current findings indicate that the demographic variables do not have significant influence on the level of success. Thus, the training institutes can remove the notion from the minds of entrepreneurs that the individuals from a particular ethnic background, race or community can only become successful entrepreneurs. This will motivate the upcoming entrepreneurs of Assam and North Eastern region to start up new ventures and strive for success. The findings of the present study shall help the educators and trainers to identify the important determinants and teach the “right things” to practicing and prospective entrepreneurs. Finally, the proposed SEM model establishing causal relationship between determinants and success will guide the policy makers to focus on the appropriate areas while framing the policies and designing entrepreneurial development programs.

9.5 Recommendations

(i) Recommendations for Entrepreneurs

On the basis of the present study, it is recommended that the MSME entrepreneurs should try to acquire the eighteen (18) important determinants of entrepreneurial success.

- Family orientation towards business is found to be one of the important determinants. The existing as well as upcoming entrepreneurs should
develop a habit of entrepreneurial orientation in their family by discussing business issues, ideas, success stories and business news.

- They should motivate their family members to start business ventures and extend all possible supports.
- They should realize the fact that they will have to strive hard and remain in business despite lot of ups & downs.
- They should accept that there is NO alternative to ‘dedication & hard work, if they wish to achieve high level success.
- Ability to recognize highly potential business opportunity is a very important determinant. Therefore, they should develop a habit of searching for potential business opportunities always. It is not necessary that they will have to go to business capital to search for opportunities; they can look for opportunities at their home, on the way to business or office, local market etc.
- Entrepreneurs should also understand that even if they lack in some areas; for example education, financial support etc still there are chances of success.
- Finally, they should realize that it is not necessary to take birth in a business family in order to become a highly successful entrepreneur.

(ii) Recommendations Policy Makers & Training Institutions

Policy makers and trainers should take all necessary steps to promote entrepreneurial culture / environment in a backward region like Assam or North
East. They should educate the existing as well as upcoming entrepreneurs regarding the important determinants of successful entrepreneurs as identified in this study and help them acquire these characteristics. They should also motivate the entrepreneurs that the success is not dependent on family background, caste, community, ethnicity, religion, age, or level of education.

9.6 Directions for Future Research

The future researchers can cross validate the findings of the present study in order to increase the generalisability of these results. Specifically, future researchers –

- Should Collect data on all important variables from other sources to verify and validate the results;
- Can test the model applicability in other state, region, countries, or in other cultural groups within the same country; and
- Can examine the model generalisability to different sectors, and businesses of different sizes.

A longitudinal study would allow the inclusion of firms that had ceased their operations. If failed firms were also included, insights into the factors that contributed to their failure could be generated. Finally, future research might address the question of whether entrepreneurs who operate internationally (i.e., cross-culturally) require different determinants of success from entrepreneurs who operate domestically (i.e., intra-culturally).
9.7 Conclusion

In conclusion, the present study confirmed that the important determinants are strongly associated with entrepreneurial success. However, demographic variables do not have any significant contribution in the level of success. The present study confirms the findings of earlier researches. The results of chapter 4 to 8 suggest that there is significant relationship between different sets of factors and the level of success. Based on the results of this study, it can be concluded that the eighteen (18) factors identified in this research are the key drivers of success in MSMEs and as such, they should continue to be a central focus of future research in this field. These eighteen factors are - Family Orientation towards business, Desire to be self dependent and Create Employments for others, Business Friendly Environment, Futuristic mindset, Sincerity and Commitment, Creativity and Adaptive to change, Ability to recognize highly potential business opportunity, Dedication and Hard work, Endurance / Continuing for long time, Marketing Skills, Operational skills, Previous Experience and remain updated with current market information, Leadership skills, Access to latest technology, Competitive Advantage, Family Support, Access to Business Network and Government Support for raw materials, technology and marketing.