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Focus : Entrepreneurship

Structural change in Employment Pattern in Odisha

Factors influencing the success of Women Entrepreneurs

Women Entrepreneurs in India

Entrepreneurial intentions drive outcomes

Social Entrepreneurship in Agriculture Sector

Genetic diversity and its impact on productivity of Cotton crop

Performance of Area, Production and Productivity of Cashew

Paving the Way for Transformational Future

Effect of NPAs on the Financial Performance of Public Sector Banks

Strategies towards sustainability of Business Schools in India

Entrepreneurship: India vis-a-vis Select Countries

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Do Entrepreneurial Intentions Drive Outcomes?

BRAJABALLAV KAR

Entrepreneurial intentions and outcomes differ and this research investigates if intentions influence the outcomes. Factor analysis of the 20 items related to the entrepreneurial intent construct was done to group it to 7 parsimonious factors. Reliability of self-reported 4 item scale for the entrepreneurial outcome was tested. Total entrepreneurial outcome factors were regressed with 7 intentions factors as the independent variables to understand its influence on the total outcome.

This research indicates that the entrepreneurial outcomes (income and savings, social respect, career, and overall satisfaction) are positively and significantly influenced by intentions such as esteem seeking, idea & skill, and altruism; but negative significant influences were observed for intentions related to necessity and alertness. The intention factors related to individualism and kinship had insignificant positive and negative relationship with outcomes respectively.

Introduction

It is believed that entrepreneurship drives economic growth, employment generation, innovation, and drives productive usage of scarce resources. On the other hand, entrepreneurship is also a Hobson's choice; it indicates an under-employment scenario, low skill, low resource level and socially less preferred choice. Also a typical small business person is perceived to be less innovative. So the broad question remains why an individual wants to become an entrepreneur and what she/he gets out of it? There are still debates about the outcome from entrepreneurship (Van Praag & Versloot, 2008). The literature review is conducted with this broad question to assess current level research in this area.

Literature Review

Entrepreneurship is an intentional process. Literature and related theories indicate that intention is the starting point for any planned behaviour (Ajzen, 1985; Fishbein & Ajzen, 1975). The intention has a cultural element (Doepke & Zilibotti, 2014). Skill and value perception influence entrepreneurial intention (Liñán, 2008). Social capital also has been suggested to influence intention (Liñán & Santos, 2007). The decision to opt for an entrepreneurial career is indicated to be a life-changing event known as an entrepreneurial event, which is impacted by social, cultural and environmental factors (Shapero & Sokol, 1982). Self-efficacy mediates the role in the development of intention (Zhao, Seibert & Hills, 2005). Characteristics like personal motivation, family tradition, previous work experience, and financial status differ among entrepreneurs (Bhide, A., 1994). Similarly, they also differ in their traits and attitudes like Need for Achievement, Power, and Independence (Stewart, Watson, Carland & Carland, 1999). Factors such as 'fear of job loss or

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frustration in earlier job' (Hughes, 2003), 'better socio-economic status through social contribution' are indicated to influence entrepreneurial intention (Blanchflower & Meyer, 1994; Vivarelli, 1991, 2004). Research continues to investigate various aspects of intention such as culture (Doepke & Zilibotti, 2014), social legitimacy (Kibler, Kautonen & Fink, 2014), prior experience (Hatak, Harms, & Fink, 2015), perceived capability and opportunity (Tsai, Chang & Peng, 2016b), self-efficacy (Kar, Subudhi & Padhy, 2017; Tsai, Chang & Peng, 2016a; Zhao *et al.*, 2005) and various other factors. Research also indicates that in many cases 'social gain' as opposed to 'individual gain' to be the dominant entrepreneurial intention (Kar & Tripathy, 2016). A summarised discussion on factors influencing entrepreneurial intention indicates that there are about 20 odd predominant factors (Kar, Mishra & Mohanty, 2014).

The entrepreneurship-outcome is also researched and indicates ambiguity. Literature indicates that the entrepreneurial outcome may be conceptually classified into three categories such as individual, organisational, and societal. These outcomes can further be classified as measurable (financial, employment generation, growth, product or process innovation, etc.) or perceived psychologically (satisfaction, learning, experience, etc.) from the effort. Measurable parameters and perceived satisfaction may be interrelated but has important methodological implications. The data or information available to the researcher to measure outcome could vary in each research. The outcome in terms of revenue and employment has been shown not to follow a normal distribution, rather, it follows power laws and shows extreme variations (Christopher Crawford, McKelvey & Lichtenstein, 2014). Similarly, the process and outcome view of entrepreneurship indicates that the process is time variant and situated in a historical and a cultural context; thus a longitudinal rather than cross-sectional research designed is argued for (Delmar & Johnson, 2015). A study measures outcomes as business performance, strategic planning, satisfaction with business success, and commitment to remain self employed (Powell & Eddleston, 2017). A study also proposes emotional arousal caused by the innovation in an entrepreneurial process, as one of the outcomes (Jennings, Edwards, Devereaux Jennings & Delbridge, 2015). Depending on the structure of the firm, financial and nonfinancial goals are being debated as the outcome of entrepreneurship (Holt, Pearson, Carr & Barnett, 2017).

Another literature argues that outcome may not be related to necessity as entrepreneurial intention (Kar *et al.*, 2014).

Gap

Studies focussing on entrepreneurial intentions are based on the robust theoretical framework, but there is also a need to broaden the scope of intention research (Krueger, 2017). The pertinent question is 'what happens afterward'? How do such differences manifest in the outcome? The entrepreneurial intentions do differ; so also the entrepreneurial outcomes. These two factors vary in its composition as well as degree. Such questions have not been attempted in the existing literature.

Intention as the starting point of the entrepreneurial endeavour is well established. However, there are different intentions and situational factors, which trigger entrepreneurship. Research does not indicate if such differences manifest in the outcome. Secondly, the entrepreneurial outcome is a multifaceted construct and there is a substantial difficulty of independently verifying each possible quantitative financial criteria and qualitative criteria, there is a need to use suitable self-reported proxy variables which adequately indicates the entrepreneurial outcome. This research uses reliable proxy measures of outcome called satisfaction as a multi-item construct and secondly, it links different intentions of entrepreneurship to the outcome. So, the broad objective of this paper is to assess differences in entrepreneurial outcomes with differences in entrepreneurial intent.

Methodology

Intention factors were taken from the literature (Kar *et al.*, 2017). The entrepreneurial satisfaction as proxy measures for the entrepreneurial outcome was derived from the literature review. The measures were the amount of income, savings, social respect, satisfaction from an entrepreneurial career and overall feeling of satisfaction. Reliability was tested for intention items (Cronbach's Alpha=0.657, $N=20$ items) and outcome measures (Cronbach's Alpha=0.741, $N=4$ items). The reliability test indicated both the instruments as reliable. The survey was conducted for willing entrepreneurs ($N=191$) who owned mostly micro and small enterprises. A factor analysis was carried out to group intention items into parsimonious factors. Regression analysis was carried out with the parsimonious factors with outcome measures.

Data analysis

Demographic and descriptive statistics of entrepreneurs

The mean duration of business in years was 13.7 ($N=191$), the mean age range of entrepreneurs was from 35-45 years, 25.1 percent were female, 81.2 percent were married. The educational qualifications of the entrepreneurs were as follows: Science and engineering graduates, 24.1%; Commerce graduates, 11%; Arts graduates, 35.6%, Management, 10.5%; professional courses in medical, 1.6%; and others qualifications were 17.3%. The initial number of employees was 2.5, and during the survey period, the number of employees was 8.9 persons per organization. The mean of last revenue in Indian rupees (INR) was up to 15 lakhs per year; with 63% reporting up to 15 lakhs per year, 21.5% reporting between 15 to 50 lakhs, 7.3 reporting 50 lakhs to 100 lakhs and 7.9% reporting more than 100 lakhs INR revenue per year. In the sample, 6.8 percent were into a part-time business.

Intention factors and distribution

The intention related items show primarily two divisions; the first section of intention factors have mean response more than the mid value (3) of the Likert scale and has modal value of 4. These factors include the following items: 'business makes future secure' (Mean=3.9, Mode=4), 'Social respect' (Mean=3.8, mode=4), 'independent minded' (mean=3.6, mode=4), 'ability to influence' (mean=3.6, mode=4), 'social wellbeing' (mean=3.5, mode=4), 'business idea' (mean=3.3, mode=4), 'market opportunity' (mean =3.3, mode=4), 'to be rich' (mean= 3.2, mode=4), and 'second source of income' (mean=3.1, mode=4).

The second group of factors have the mean value less than the mid value (3) of the Likert scale and also the modal value as 2. These factors include 'profit orientation' (Mean=2.9, mode=2), 'Hobby' (mean=2.9, mode=2), 'expertise' (mean=2.8, mode=2), 'event or a situation' (mean=2.5, mode=2), 'enough money to invest' (mean=2.3, mode=2), 'no other option' (mean=2.3, mode=2), 'influence opposite gender' (mean=2.3, mode=2), 'Government contact' (mean=2.3, mode=2), 'family Business' (mean=2.2, mode=2), 'community tradition' (mean=2.2, mode=2), and 'forced by family' (mean=1.8, mode=1).

Some of the peculiar observations are as follows- though entrepreneurship is considered risky yet the

response indicates a higher sense of security to be in entrepreneurship. This could also indicate heightened job insecurity faced by prospective and existing employees in private organizations. Ownership of one's own organization helps to stem such insecurity. Similarly the intention to have 'second source of income' seems to corroborate 'sense of security'. It is also likely that the need for second source of income is because the existing job opportunities are no equally remunerative compared to the efforts needed. If the individuals are faced with insecurity as well as non-remunerative career choices, then entrepreneurship is considered a better alternative, even with perceived risk. Unlike the general perception of a lack of respect for business persons, the response indicates that there is social respect for business persons. Independence, ability to influence and desire to be rich indicates the personal characteristics of entrepreneurs. Along with these factors 'good business idea' and 'market opportunity' indicates innovativeness and alertness of the entrepreneurs. However, there is also a sense of 'social well-being' in entrepreneurial efforts, it is not fully hedonistic. The second group of factors where entrepreneurs disagreed included situational constraints, family pressure, or family business, or community tradition. This indicates they were not necessity-entrepreneurs. Entrepreneurs also did not choose the career because of expertise or hobby; which indicates that either they did not have prior competence or did not choose a business based on existing competence. As generally expected, the response indicated that the entrepreneurs did not have a substantial investible surplus, which prompted the entrepreneurial decision. Similarly, the decision was not to influence opposite gender or because of access to government contact.

Factor analysis of intention

To bring parsimony to 20 items of intent, the factorability of these items was examined. Twenty pairs of showed Pearson's coefficient of correlation of at least 0.3 ($p<.05$), and 77 pairs had coefficient up to 0.3 with significance $p<.05$. It suggested a reasonable factorability. Kaiser-Meyer-Olkin measure for sampling adequacy indicated ($KMO=0.696$, accepted value =0.6), adequate sample size. Bartlett's test of sphericity indicated that the off-diagonal elements of the correlation matrix is an identity matrix (diagonal elements 1, and other elements = 0) and hence off-diagonal variables are not correlated.

Bartlett's test of sphericity was found significant χ^2 (df, 190) = 953.504, $p < .01$ (Table 1). The communalities of each variable were all above 0.3. Factor analysis is suitable under these conditions. Principal components analysis was used since the primary purpose was to identify factors for a short version of the intent construct. The rotated component matrix (Table 2) was used to find factor loadings of the items. Rotation sum squared loadings indicate that 7 identified factors explain 63.17 percent of the variances (Table 3). The factors were named as indicated in table 4 and the variance explained by such factors are mentioned within brackets: Individualism (12.4%), Kinship (10%), Esteem

Seeker (9.4%), Necessity (9.2%), Idea & skill (8.5%), Altruism (7.4%), Alertness (6.4%).

Table 1: Measure of Sampling Adequacy

| KMO and Bartlett's Test | | |
|--|--------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .696 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 953.504 |
| | df | 190 |
| | Sig. | .000 |

Table 2: Rotated Component Matrix

| | Component | | | | | | |
|------------------------|-----------|-------|-------|-------|-------|-------|-------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Event or a situation | .086 | -.068 | -.102 | .830 | .030 | .000 | .061 |
| No other option | .216 | .076 | .157 | .781 | -.014 | -.054 | -.161 |
| Enough money to invest | .037 | .634 | -.202 | -.168 | .398 | .207 | -.029 |
| Family Business | .035 | .821 | .017 | .105 | .017 | -.103 | .023 |
| Business idea | .237 | .091 | .129 | .140 | .780 | .082 | .106 |
| Contact in Government | .327 | -.032 | .055 | -.032 | -.012 | .766 | -.007 |
| Become rich | .520 | .159 | .282 | .139 | .091 | -.274 | .429 |
| Hobby | .646 | .015 | .093 | .066 | .251 | .194 | .026 |
| Market opportunity | .445 | .076 | .074 | .003 | .471 | -.090 | .472 |
| Second income source | -.290 | -.043 | .122 | -.204 | -.183 | .184 | .657 |
| Social wellbeing | -.275 | -.239 | .128 | -.149 | -.066 | .630 | .133 |
| Forced by family | -.157 | .404 | -.064 | .585 | .011 | -.143 | -.062 |
| Fufure secure | .084 | .171 | -.769 | .008 | -.033 | -.030 | .232 |
| EXPERT in the area | -.029 | .031 | .036 | -.091 | .692 | -.250 | -.279 |
| SOCIAL RESPECT | .064 | -.085 | .774 | .008 | .003 | .157 | -.390 |
| Opposite gender | .667 | .038 | .029 | .151 | .101 | -.042 | -.165 |
| Independent minded | .411 | -.151 | .290 | -.019 | .158 | -.387 | .093 |
| Influential | .183 | -.050 | .583 | -.043 | .267 | .028 | .236 |
| Community tradition | .190 | .746 | .157 | .111 | -.025 | -.130 | .029 |
| Profit | .708 | .144 | .087 | -.022 | -.069 | .025 | -.024 |

Source: Author's data; Extraction Method: Principal Component Analysis; Rotation Method: Varimax with Kaiser Normalization; Rotation converged in 11 iterations

Table 3: Total Variance Explained

| Component | Initial Eigen values | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings | | |
|-----------|----------------------|---------------|--------------|-------------------------------------|---------------|--------------|-----------------------------------|---------------|--------------|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 3.758 | 18.792 | 18.792 | 3.758 | 18.792 | 18.792 | 2.486 | 12.430 | 12.430 |
| 2 | 2.284 | 11.421 | 30.213 | 2.284 | 11.421 | 30.213 | 1.991 | 9.953 | 22.383 |
| 3 | 1.673 | 8.367 | 38.580 | 1.673 | 8.367 | 38.580 | 1.874 | 9.370 | 31.752 |
| 4 | 1.473 | 7.364 | 45.944 | 1.473 | 7.364 | 45.944 | 1.834 | 9.171 | 40.923 |
| 5 | 1.310 | 6.552 | 52.496 | 1.310 | 6.552 | 52.496 | 1.690 | 8.451 | 49.374 |
| 6 | 1.133 | 5.663 | 58.159 | 1.133 | 5.663 | 58.159 | 1.480 | 7.398 | 56.772 |
| 7 | 1.002 | 5.012 | 63.171 | 1.002 | 5.012 | 63.171 | 1.280 | 6.400 | 63.171 |
| 8 | .920 | 4.598 | 67.769 | | | | | | |
| 9 | .848 | 4.238 | 72.007 | | | | | | |
| 10 | .745 | 3.726 | 75.733 | | | | | | |
| 11 | .682 | 3.410 | 79.143 | | | | | | |
| 12 | .649 | 3.245 | 82.387 | | | | | | |
| 13 | .618 | 3.091 | 85.479 | | | | | | |
| 14 | .515 | 2.573 | 88.052 | | | | | | |
| 15 | .500 | 2.502 | 90.554 | | | | | | |
| 16 | .461 | 2.303 | 92.857 | | | | | | |
| 17 | .414 | 2.068 | 94.925 | | | | | | |
| 18 | .370 | 1.849 | 96.774 | | | | | | |
| 19 | .329 | 1.643 | 98.417 | | | | | | |
| 20 | .317 | 1.583 | 100.000 | | | | | | |

Extraction Method: Principal Component Analysis.

Satisfaction factors

The survey response presented in table 5, indicated that the entrepreneurs get the highest satisfaction from the social respect (mean=3.9), second highest satisfaction from the income and savings (mean=3.8), and the entrepreneurial career (mean=3.7). They rate their overall satisfaction from entrepreneurship as the highest (mean=4.0). The response distribution of satisfaction is found to be close to a normal distribution as indicated from the skewness data. The factors bivariate correlation

presented in table-6 indicates that there is convergence among satisfaction measure items.

Regression Analysis

At the second stage of data analysis, the factors obtained from the factor analysis were grouped together and tested for their relationship to the outcomes. Before the regression test, the assumptions for regression test such as normality test, collinearity of independent variable and multi-collinearity was tested. The normality test was

Table 4: Factor Naming of Intention Factors

| Factors | Factor items | | | | | Factor Naming (% of variation) |
|-----------|---------------------------|--------------------------|--------------------|-------|-------------|--|
| F1 | Profit Making | Influence gender | To be rich | Hobby | Independent | <i>Individualism</i> (12.4%) |
| F2 | Family Business | Community tradition | Investible Surplus | | | <i>Kinship</i> (10%) |
| F3 | Social Respect | Secure future | Influence others | | | <i>Esteem Seeker</i> (9.4%) |
| F4 | Forced by situation | No other option | Forced by family | | | <i>Necessity</i> (9.2%) |
| F5 | Business idea | Business Expertise | | | | <i>Idea & skill</i> (8.5%) |
| F6 | Social well-being | Govt/Institution contact | | | | <i>Altruism</i> (7.4%) |
| F7 | Market opportunity | Second Income | | | | <i>Alertness</i> (6.4%) |

Data Source: Author's own data collection

Table 5: Likert Scale Response of Satisfaction Factor

| Satisfaction Factors | Likert Scale Response (N=191) | | | | | Mean | Skewness |
|----------------------|-------------------------------|--------------|---------------|----------------|---------------|------|----------|
| | 1 | 2 | 3 | 4 | 5 | | |
| Income and savings | 1 (0.5%) | 15 (7.9%) | 39 (20.4%) | 111 (58.1%) | 25 (13.1%) | 3.8 | -0.71 |
| Social Respect | 1 (0.5%) | 6 (3.1%) | 36 (18.8%) | 115 (60.2%) | 33 (17.3%) | 3.9 | -0.69 |
| Career | 2 (1.0%) | 19 (9.9%) | 47 (24.6%) | 85 (44.5%) | 38 (19.9%) | 3.7 | -0.49 |
| Overall Satisfaction | 2 (1.0%) | 4 (2.1%) | 21 (11.0%) | 127 (66.5%) | 37 (19.4%) | 4.0 | -1.15 |

1-Fully Dissatisfied; 2-Dissatisfied; 3-Neither satisfied nor Dissatisfied;4-Satisfied; 5-Fully Satisfied

Table 6: Pearson Correlation among items of satisfaction measures (N=191)

| | Income/Savings | Social Respect | Career | Total |
|----------------|-------------------|-------------------|-------------------|-------|
| Income/Savings | 1 | | | |
| Social Respect | .431** (0.000) | 1 | | |
| Career | .375** (0.000) | .358** (0.000) | 1 | |
| Total | .459** (0.000) | .377** (0.000) | .550** (0.000) | 1 |

Source: Author's own data source p values in brackets

conducted through both Kolmogorov-Smirnov and Shapiro-Wilk, for dependent and independent variables before conducting a regression analysis (Table 7), which indicated that the variables are reasonably normally distributed. Pearson's correlation test among independent factors was conducted to understand its suitability for regression analysis. It was found that out of 54 pairs only 3 pairs

exhibited significant (<0.05) Pearson's coefficient correlation value of >0.3 (Table 8). Thus the linear regression model is found acceptable. Further, the collinearity diagnostics (Table 12) was run to understand the robustness of the regression outcome. The condition index values indicated that the regression analysis result is acceptable.

Table 7: Test of Normality for regression variables

| | Kolmogorov-Smirnov ^a | | | Shapiro-Wilk | | |
|--------------------|---------------------------------|-----|-------|--------------|-----|-------|
| | Statistic | df | Sig. | Statistic | df | Sig. |
| Total Satisfaction | 0.145 | 191 | 0.000 | .947 | 191 | 0.000 |
| Individualism | 0.119 | 191 | 0.000 | .966 | 191 | 0.000 |
| Kinship | 0.162 | 191 | 0.000 | .905 | 191 | 0.000 |
| Esteem Seeker | 0.178 | 191 | 0.000 | .932 | 191 | 0.000 |
| Necessity | 0.155 | 191 | 0.000 | .921 | 191 | 0.000 |
| Idea & Skill | 0.118 | 191 | 0.000 | .961 | 191 | 0.000 |
| Altruism | 0.154 | 191 | 0.000 | .956 | 191 | 0.000 |
| Alertness | 0.150 | 191 | 0.000 | .958 | 191 | 0.000 |

a. Lilliefors Significance Correction

Table 8: Pearson Correlations among independent variables, p values in bracket

| | Individualism | Kinship | Esteem Seeker | Necessity | Idea & skill | Altruism | Alertness |
|---------------|-----------------|-----------------|-----------------|------------------|-----------------|---------------|-----------|
| Individualism | 1 | | | | | | |
| Kinship | 0.188** (0.009) | 1 | | | | | |
| Esteem Seeker | 0.335** (0.000) | -0.053 (0.464) | 1 | | | | |
| Necessity | 0.162* (0.025) | 0.153* (0.034) | -0.038 (0.602) | 1 | | | |
| Idea & skill | 0.317** (0.000) | 0.212** (0.003) | 0.147* (0.043) | 0.075 (0.304) | 1 | | |
| Altruism | -0.042 (0.568) | -0.152* (0.036) | 0.188** (0.009) | -0.218** (0.002) | -0.164* (0.023) | 1 | |
| Alertness | 0.221** (0.002) | 0.07 (0.337) | 0.221** (0.002) | -0.141 (0.052) | 0.132 (0.069) | 0.105 (0.148) | 1 |

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Regression

Table 9: Regression Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .565 ^a | .320 | .294 | 1.99956 |

a. Predictors: (Constant), Alertness, Kinship, Altruism, Esteem, Necessity, Idea & Skill, Individualism

Table 10: Regression Model ANOVA test

| ANOVA ^a | | | | | | |
|--------------------|------------|----------------|-----|-------------|--------|-------------------|
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 343.873 | 7 | 49.125 | 12.287 | .000 ^a |
| | Residual | 731.676 | 183 | 3.998 | | |
| | Total | 1075.550 | 190 | | | |

a. Predictors: (Constant), Alertness, Kinship, Altruism, Esteem, Necessity, Idea & Skill, Individualism

b. Dependent Variable: Total Satisfaction

Table 11: Coefficient of Regression Equation

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------|---------------|-----------------------------|------------|---------------------------|--------|-------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 10.785 | 1.216 | | 8.870 | 0.000 |
| | Individualism | 0.078 | 0.042 | .131 | 1.863 | 0.064 |
| | Kinship | -0.028 | 0.056 | -.032 | -.504 | 0.615 |
| | Esteem | 0.342 | 0.084 | .274 | 4.058 | 0.000 |
| | Necessity | -0.279 | 0.054 | -.333 | -5.165 | 0.000 |
| | Idea & Skill | 0.205 | 0.087 | .156 | 2.347 | 0.020 |
| | Altruism | 0.295 | 0.091 | .211 | 3.243 | 0.001 |
| | Alertness | -0.202 | 0.096 | -.137 | -2.118 | 0.036 |

a. Dependent Variable: Total Satisfaction

The regression model summary indicated that (Table 9) the model explains 32% of the variance ($R^2 = 0.32$). The ANOVA test (Table 10) indicated that the model result is significant ($F=122.287$, $p=0.000$). The coefficient of the regression equation (Table 11) indicated that except one item, all other predictor variables were able to explain the outcome significantly.

Discussion

The regression equation for the outcome with independent variables is presented below.

The β value for individualism (0.078) was not found to be significant at <0.05 level the calculated value was $p=0.064$. The individualism factor was conceptualised as the intention related to 'be independent', 'to be rich', 'pursue hobby for business', 'profit focus', and 'to influence other gender'. These factors are primarily individualistic in nature. The factor individualism was expected to be significant for the outcomes. The possible explanation could be (a) the outcomes can be debated to be due to the individual entrepreneur alone; rather it is the team outcome. (b) The individual intention gets moderated by other organizational and circumstantial variables. (c) The sample also had

$$\text{Outcome (Y)} = 10.785 + 0.078 \times \text{Individualism} - 0.028 \times \text{Kinship} + 0.342 \times \text{Esteem Seeker} - 0.279 \times \text{Necessity} + 0.205 \times \text{Idea \& skill} + 0.295 \times \text{Altruism} - 0.202 \times \text{Alertness}$$

Table 12: Collinearity Diagnostics^a

| Model | Dimension | Eigenvalue | Condition Index | Variance Proportions | | | | | | | |
|-------|-----------|------------|-----------------|----------------------|---------------|---------|--------|-----------|--------------|----------|-----------|
| | | | | (Constant) | Individualism | Kinship | Esteem | Necessity | Idea & Skill | Altruism | Alertness |
| 1 | 1 | 7.489 | 1.000 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| | 2 | .168 | 6.686 | .00 | .00 | .09 | .00 | .44 | .00 | .10 | .02 |
| | 3 | .126 | 7.710 | .00 | .00 | .61 | .00 | .34 | .01 | .03 | .00 |
| | 4 | .084 | 9.436 | .00 | .06 | .24 | .00 | .03 | .33 | .26 | .01 |
| | 5 | .052 | 11.990 | .00 | .10 | .00 | .00 | .00 | .47 | .20 | .39 |
| | 6 | .044 | 12.978 | .00 | .66 | .00 | .01 | .04 | .08 | .01 | .38 |
| | 7 | .026 | 17.070 | .07 | .17 | .00 | .51 | .05 | .07 | .31 | .14 |
| | 8 | .011 | 26.051 | .93 | .02 | .05 | .47 | .10 | .04 | .09 | .05 |

a. Dependent Variable: Total Satisfaction

entrepreneurs who had part-time business, and their response may influence the result.

Similarly, the kinship effect with $\beta = -0.028$ was not found significant, the negative value of coefficient indicates that the outcome could be negative if enough money, family business or tradition of business are predominant motives for entrepreneurship. Immediate family members belong to a cultural context; kith and kin are often the first sources of capital, and support with labour, but the entrepreneurial intention driven by factors related to family (enough investible surplus, family business and community tradition) does not significantly influence the entrepreneurial outcome.

This study indicates that intention arising out of esteem-needs such as social respect, intention to influence others and security offered by own business has a very high role in determining the overall satisfaction outcome. Research indicates that successful entrepreneurs are younger, feared job loss and have a more internal locus of control (Brockhaus, 1980). A report suggests that experience, management and luck to be the primary factors for entrepreneurial success (Wadhwa, Aggarwal, Holly & Salkever, 2009).

This research finds that, if the predominant motive for entrepreneurship is out of necessity i.e. forced by family, no other options or forced by a situation, the outcome is likely to be negative. This finding is supported by prior researches (Block, Kohn, Miller & Ullrich, 2015). It seems

necessity entrepreneurs work opposite to economic cycle (Fairlie & Fossen, 2018); a similar view is also that during a recession, necessity entrepreneurs are ineffective (Devece, Peris-Ortiz & Rueda-Armengot, 2016).

Ideas and skills of an entrepreneur is often the backbone of entrepreneurship. Business expertise is considered a component of entrepreneurial self-efficacy. This study also indicates that entrepreneurial outcome is positively and significantly related to the intentions related to ideas and skill. This study finding is supported by other studies as well (Cefis & Marsili, 2018; Devece et al., 2016; França & Rua, 2017; Hyytinen, Pajarinen & Rouvinen, 2015; Stewart et al., 1999; Wokoun, Kolaøík & Kolaøíková, n.d.)

Entrepreneurs create jobs; employ people and have concern for them. Thus, there is an element of altruism in entrepreneurship. Social well-being and public contact as indicated in this research influence the outcome positively. Earlier research finding of 'social well-being' as an intention of entrepreneurs is supported in this research (Kar & Tripathy, 2016).

The role of alertness to seize a market opportunity is well established in entrepreneurship literature. Kerzernian entrepreneur is considered to be alert to market opportunity (Kirzner, 1999), on the other hand, Einstellung theory indicates that habitual reliance of available cognitive framework may be counterproductive (Sahai & Frese, 2017). An important factor in this study

is that the entrepreneurs are not novice entrepreneurs; they have their existing small businesses. Thus, the intentions are ex post facto reported. Before taking the plunge a small business owner may be alert to opportunities but after entering to a business, the entrepreneur focus on the existing one, thus likely not to divert the attention. This could explain the negative effect observed in this study.

Overall, this study reports that the entrepreneurial outcomes (income and savings, social respect, career and overall satisfaction) are positively and significantly influenced by intentions such as esteem seeking, idea & skill, and altruism; but the negative significant influence was observed for intentions related to necessity and alertness. The intention factors related to individualism and kinship had an insignificant positive and negative relationship respectively with outcomes.

Limitation and further scope

This study has limitations inherent in a self-reporting survey, secondly, the samples were chosen conveniently and with their consent. Thus, the findings are specific to the sample. A wider generalisation is possible with randomization. The inclusion of verifiable secondary data on financial and employment parameter as an outcome would bring higher robustness to the findings. It may also be anticipated that the variability of the outcome may be due to gender and entrepreneurs who are into part-time business.

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“All our dreams can come true, if we have the courage to pursue them.”

– Walt Disney

Social Entrepreneurship in Agriculture Sector: Challenges and Opportunities

SUJIT MAJHI

Agri-Social entrepreneurship is a process of creation, change, sustainable development and significant social problem solving mechanism. Social entrepreneurship development in agriculture sector has a significant role in India. The major challenges for social entrepreneurship development in agriculture are cultural complexity, lack of proper understanding of the social enterprise; low priority against urban based enterprises etc. Agriculture sector has tremendous potential and opportunities for social entrepreneurship development considering different activities and dimension. Organic farming, value chain management, agri-decision support system, input and product management are some of the opportunities for agri-social entrepreneurship development in India.

Introduction

Agriculture sector acts as a backbone in most of the developing countries. In India agriculture contributes 17 percent to the GDP and employs 53 percent of the population. In the last few decades the sector has witnessed a change from subsistence farming system to sustainable growth with value addition to the farm produce thus fuelling entrepreneurship development. Production, productivity, profitability and sustainability are the key agenda for development of agriculture in our country. Doubling of farmers income can be achieved through system management, risk management and innovative productivity process. In fact the criteria should not only be economically driven but also incorporate social inclusion of vulnerable groups by reinvestment and reconsidering the value chain system. Historically agriculture is considered as an enterprise but the current challenges should be tackled through social enterprises to solve the significant social problems. A social entrepreneur understands locally available talent, skills wisdom and abilities, which can be developed to attract customers by producing new products and services. Eradication of social evils, learning new technology and developing solidarity are the areas where social entrepreneurs can create wonders. Thus a social entrepreneur can play a multiple role and become builder of basic block of social development. (Manyaka, 2015). Here the important point is the role of social entrepreneurship in solving problems of poverty and social exclusion, especially prevalent in rural areas. It is important in rural areas to create suitable conditions for building social enterprises including all vulnerable groups. In this connection, the current study aims at revealing the opportunities and significant benefits of social entrepreneurship for sustainable agricultural development through analysis of the factors and challenges in its application.

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Objective of the study

In the last two decades social entrepreneurship development has emerged as a creative and change innovative mechanism in our country. Father of the nation Mahatma Gandhi also emphasized on social transformation through cottage and small industry at village level. We have put considerable emphasis on the micro, small, medium enterprises creation and expansion to solve the social problems at the community level. It is the need of hour to analyse the challenges faced by social entrepreneurs engaged in agriculture sector as its contribution to the GDP has decreased. Hence a study on "Social entrepreneurship in agriculture sector: challenges and opportunities" has been undertaken with the following objectives:

1. To study the various challenges of social entrepreneurship regarding development of agriculture
2. To identify opportunities in agriculture for social entrepreneurship development
3. Suggestion and recommendation for agri-socio entrepreneurship development

Materials and Methods

This paper assesses the various dimensions of social entrepreneurship development in agriculture in the Indian perspective. Various challenges of social entrepreneurship for agricultural development and the feasible opportunities of social entrepreneurship development in agriculture and allied sector have been identified. As per the challenges and opportunities, some key suggestions have been recommended for development of agriculture in the country. So this study is to critically examine the social entrepreneurship in agriculture sector in India. The secondary data from the different documents, reports, articles and case study for the social enterprises in India are collected and analyzed. Various sources have been reviewed to know the key characteristics, challenges, opportunities, key social entrepreneurs in our country so that few feasible solutions can be suggested for agricultural development.

Concept of Social entrepreneurship

The term 'Social Entrepreneurship' first emerged in the 1980's from the work of ASHOKA, an organization founded by Bill Drayton. However, the tradition of social entrepreneurship has long back tradition when Adam Smith

emphasis on the wealth creation share within the community. The Rochdale principles, which still govern the co-operative movement include a range of modifications for business operations aimed at improving social impact including: limitations on member compensation and appropriate use of surpluses, democratic control, education and training, concern for community. The co-operative is perhaps the most enduring and widespread manifestation of social enterprise developed globally.

The Fair Trade movement, which developed particularly in Europe and the US after the Second World War was inspired by the belief that free trade between developing and developed countries could have greater social impact if modified through various mechanisms, including guaranteed minimum prices paid to developing country suppliers and premiums above market prices used to finance collectively controlled funds used for the benefit of producer communities. Similar beliefs have inspired the microfinance movement, which emulates many aspects of private money lending, (Darko, 2014). In India the concept of social enterprise can be traced back to the cooperative movement. Social entrepreneurship is an innovative approach for dealing with complex social problems (Johnson, 2000), where social entrepreneurs play the central role. They are the key to successful social entrepreneurship (Bornstein, 2007). Some of the social entrepreneurs who created and changed the entrepreneurship scenario in the world are Muhammad Yunus of the Grameen Bank in Bangladesh, Ella Bhat of the Self-Employed Women's Association (SEWA) in India, Bill Drayton of the Ashoka Foundation in the United States and Ms Maathai of Green Belt in Kenya. These social entrepreneurs, through their innovative ideas, energy and steadfastness, created social value, solved social problems and brought many positive changes to the lives of the world's poor. (Basu, 2012).

While, Robinson (2006, 95) explains social entrepreneurship as a process. It includes phases like, identification of a particular social problem and a solution to address it, the evaluation of the social impact realized, the sustainable model of the business that generate social-objective directed for-profit or a business directed nonprofit entity that addresses the double (social & economic) or triple bottom line (social, economic & environmental), (Kickul & Lyons, 2012). Social entrepreneurship is a process while an entrepreneur is a person who creates the enterprise. Muhammad Yunus et al., 2012 define a social enterprise as one whose social purpose takes

precedence over its economic purpose and encourages non-profit private initiatives that serve the public interest. Social business is an entrepreneurial approach being part of current capitalism models diversity: It introduces some topics, issues and concerns related to poverty, vulnerability and development in the business sphere potentially leading to innovative methods of action. Social business differs from charitable approaches, which can lead to short-lived projects and has been accused of encouraging dependency,

Definition of social entrepreneurship has changed over time. social enterprises do not have a legal definition within Indian regulatory frameworks, but it considered as an element of Micro, Small, and Medium Enterprises (MSME). The definitions and concept related to social entrepreneurship may not be rigidly defined and vary from country to country but the main motives characteristics and assumptions are same. The eight basic assumptions of social entrepreneurs according to Noruzi et al 2010 are:

1. Social entrepreneurs may be individuals, groups or community or association.
2. Sustainable, large-scale change are main motive
3. Social entrepreneurship can involve pattern-breaking ideas or creative ideas to address significant social problems
4. Exist in and between all sectors
5. Social entrepreneurs need not engage in social enterprise or use market-based tools to be successful.
6. The quantity of social entrepreneurship can vary greatly across individuals and entities.
7. The intensity of social entrepreneurship can and does ebb and flow over time as circumstances change.
8. Social entrepreneurs sometimes fail, though at as-yet-to-be-determined rates
(Source- Noruzi *et al.*, 2010)

Need for Agri-Socio Entrepreneurship Development in India

India has immense potential and opportunities for agricultural development and growth of social entrepreneurship particularly in this sector as per a World Bank study. According to the report of British council Global Social Enterprise Programme, 2017, India is home to 2 million social enterprises, 28 percent of which focus

on agriculture sector. Further report suggested that social enterprises can generate employment and skills development among disadvantaged groups as well as create sustainable innovations that will help farmers and agricultural SMEs by advancing their operations. World Bank estimates project that food demand will increase by 70 percent by 2050 as a result of population growth. To expand the scope of the global food system, small producers, traders, processors, and other business owners throughout food supply chains in low- and middle-income countries require innovative technology, new methods of financing, and preparation to become successful entrepreneurs. Farmers need help to intensify and diversify their production to insulate themselves from the effects of erratic weather and land degradation, and meet increasing demand for different crops. Agricultural work forces and entrepreneurs need training in new techniques, risk aversion, and financial literacy. Agricultural small and medium-sized enterprises (SMEs) need help to navigate barriers to financing so that they can access the credit and financial tools they need to grow their businesses (Chicago Council on Global Affairs, 2017).

Leading Social Entrepreneurs in India

India produces significant number of social entrepreneurs who have had significant impact on agriculture and allied sectors. Some of them have been awarded various prestigious recognitions and awards and the prize money has been utilized for development of vulnerable sections of the society in our country as well as world. The following table lists leading social enterprises in India working for agriculture and rural development.

Social entrepreneurs like Dr. Verghese Kurien also known as father of the white revolution ushered in drastic change in the milk production business through cooperative movement. Vinobha Bhave created reformation due to Bhoodan movement in land reform policy and Ela Bhatt acted as a pioneer in women empowerment in India. (Table 1) In spite of social entrepreneurship playing a major role in national development in many sectors they face several challenges that need to be addressed.

Challenges of Agri-Social Entrepreneurship in India

India being the second largest populated country having erratic climatic pattern and high bio-diversity and cultural diversity, the challenges of agri-social entrepreneurship development is noteworthy in the current situation as doubling of farm income, food and social security are the

Table 1: Leading Social Enterprise in Agriculture and Rural Development in India

| SI No. | Social Entrepreneur | Social Enterprise | Innovation and Activities |
|--------|------------------------------|--|---|
| 1 | Dr. Verghese Kurien | AMUL | Milk revolution |
| 2 | Dr M S Swaminathan | MSSRF | Biodiversity and evergreen revolution |
| 3 | Vinoba Bhave | Land Gift Movement | Land reform |
| 4 | Ela Bhatt | SEWA | Women empowerment Social Security |
| 5 | Mr. Bhavarlal Jain | Jain Irrigation Systems Ltd. | The second largest Micro-Irrigation company in the world |
| 6 | Mr Paul Basil | Villgro Innovation Foundation | India's oldest and foremost social enterprise incubator. |
| 7 | Amitabha Sadangi | International Development Enterprises India (IDEI) | Micro-irrigation technologies |
| 8 | Chetna Vijay Sinha | Mann Deshi Group of Ventures | Mann Deshi Mahila Sahakari Ltd. |
| 9 | Sam Pitroda | Telcom revolution | |
| 10 | Sanjit (Bunker) Roy | Barefoot College | Solar energy, Rural handicrafts, women's empowerment. |
| 11 | Dr G. Venkataswamy | Aravind Eye Hospital | Largest and most productive eye care facility in the world |
| 12 | Sri Sri Ravi Shankar | Art of Living Foundation | International Association for Human Values |
| 13 | Vijay Mahajan | BASIX | First Micro finance institution |
| 14 | Ashok Khosla | Development Alternatives | Climate change |
| 15 | Neichute Doulo | Entrepreneurs Associates | North-East India's first incubator |
| 16 | Dr. Abraham M. George | The George Foundation (TGF). | Poverty eradication |
| 17 | Mr. Arunachalam Muruganatham | Jayshree Industries | Sanitary napkins, women empowerment |
| 18 | Mr. Joe Madiath | Gram Vikas | Movement and Action Network for Transformation in Rural Areas |
| 19 | Shri Devendra Mehta | Jaipur Foot | Health care |
| 20 | Hanumappa Sudarshan | Vivekananda Girijana Kalyana Kendra | Tribal development |
| 21 | Ms Neelam Chhiber | Industree Crafts Foundation | Mother Earth stores |
| 22 | Madhu Pandit Dasa | The Akshaya Patra Foundation | Mid-day meal scheme |
| 23 | Safeena Husain | Educate girls | Education and women empowerment |

key socio-economic issues need to be addressed properly. Organic farming practice, agriculture finance and incubation services need to be developed for growth of the sector.

Creation of social value in agriculture and allied sectors to make them more profitable, sustainable and scalable will help in realizing the mission and vision of our country. The nature of challenges may vary as mindset of people is different hence challenges considered as problematic by the public and policy makers may be different but some challenges faced by agri-entrepreneurs should be addressed properly to solve the social problems. There are constraints and challenges of agri-enterprises at various levels, degree and dimensions from customers to policy makers, which are discussed below:

1. Cultural complexity

Non-entrepreneurial mindset is one of the challenges in agriculture sector as customers as well as stakeholders think agricultural development is unskilled, untrained job of the farmers. Culture plays most vital role in its development, particularly in India, as it is a highly cultural diverse country. Cultural differences across societies can create a non entrepreneurial mindset.

2. Access to finance

Access to finance is a major challenge for agri-social entrepreneurship development in developing countries. One of the most common interventions by policymakers and development partners to support entrepreneurship development is improving access to finance. The seed capital in early stages of finance may not be a problem to that extent but for expansion of enterprise and for later stage, finance is a major problem. Sometimes this leads to resource gap between the start-up capital and sustenance of enterprise in the later stages.

3. Lack of proper understanding of the social enterprise

Another challenge can be lack of proper understanding of the social enterprise. There is a generic view that social enterprise is social work without considering the entrepreneurship dimension. There is a lack of understanding about the complexity of enterprise models on the side of the entrepreneurs, potential investors and government agencies. In case of agri-enterprise sometimes an agri-entrepreneur

thinks that social work is part and parcel of the enterprise so need not to concern about social dimension of that enterprise.

4. Low priority against urban based enterprises

As compared to other sectors like education, health care, machinery and equipment etc. social entrepreneurship in agriculture sector has low demand. The newer generation prefers to migrate to urban areas compared to farming professionally. Decline in land ownership, lack of infrastructure and technology support for small scale farmers causes non entrepreneurial mindset in agriculture sector.

5. Challenges of building and maintaining partnerships

Building partnership among the stakeholders and investors is a challenge due to lack of cooperation. Building and maintaining partnerships with stakeholders with an aim to increase social impact in agriculture sectors is need of the hour.

6. Differences in food habits and pattern

Food habits and pattern varies from region to region and community to community. So expansion of agri-entrepreneurship in food processing sector is hindered. Consumerism, unsustainable consumption and waste generation may be some of the challenges that have to be overcome.

7. Lack of technical knowledge

Inadequate technical knowledge to establish an agri-enterprise is another challenge. Due to insufficient technical knowledge and inefficiency of social workers or rural entrepreneurs and urban entrepreneurs, social entrepreneurship faces setbacks.

8. Access to technology

Technology is not available as desired by an agri-entrepreneur. In an era of digital and information and communication technology, the secondary and supportive technology are lacking at the local level. Due to poor electricity, infrastructure in tribal dominated areas, mobile technology may be less access to the entrepreneur.

9. Lack of managerial and marketing experience

Social entrepreneurship is the blending of managerial skill as well as leadership skill. An able leader must

identify potential workforce and influence them to work dedicatedly. Consumer behavior and stakeholders' prime objectives and vision of creation of agri-entrepreneurship should be dealt with properly. However, since social entrepreneurship in agriculture sector is new hence lack of experience affects it adversely. Hence it is a challenge for agri-entrepreneurs to survive and be sustainable.

10. Lack of exposure, training and skills

The agri-entrepreneurs have less exposure to capacity building approaches. Rejula K (2011) while studying 'social entrepreneurship for agricultural and rural development in kerala *Mitraniketan*' found that training skilled personnel, employing them and retaining them for social enterprise management was a major challenge.

11. Incoherent development policies and programs

As compared to last decades, the government implemented significant policies related to medium, small and micro enterprises but it is not significant to the extent that would allow agri-social entrepreneurship to grow at a rapid pace in the country. Inadequate systematic and deliberate policy leads to unethical social entrepreneurship in this sector due to corruption, illiteracy, nepotism etc.

12. Low demand to be socially entrepreneurial

Entrepreneurship development has made remarkable achievements in the last few decades in India but social entrepreneurship growth rate has not seen any significant development.

13. Shortage of talented/dedicated workforce

Decline in the size of land holding as well as contribution to gross value added in agriculture sector to our economy shows that people have less interest towards farming. Social entrepreneurship in general faced the challenge of finding dedicated workers as it is to work for social gains/benefits rather than personal benefits. Under these situations it is very problematic to find talented work force. Rawal T (2018) also observed that confusion with social work, the problem of creativity, arranging finance setting and communicating value objectively are the challenges faced by social entrepreneurs in India.

Opportunities of Agri-Social Entrepreneurship in India

Agriculture and allied sectors have gained significant attention in since last few decades. Agri- social entrepreneurship development has immense scope for creation of jobs and opportunities, expansion and commercialization, which could be helpful to achieve sustainable growth as well as doubling farm income. NITI ayog and other policy making body and organisation like ICRISAT, ICAR and cooperative organizations like IFFCO, NAFED have been taking various steps to materialize the opportunities into fruitful one. Social incubation services, microfinance, value chain management, risk management, agri-decision support system are the opportunities that need creative utilization. **Table 2** shows various activities that need to be undertaken judiciously and economically to develop agri-socio entrepreneurship in agriculture sector.

Agri-tourism, custom hiring agro-metereological advisory services, cooperative farming, value chain management and marketing logistics, organic farming and organic products development and management are the emerging areas that need to be scaled up and explored to their maximum potential.

Suggestion and recommendation

India as known for its cultural, biological and social diversity and majority of the poor are in rural areas who depend on agriculture for their livelihood. Agri-social entrepreneurship development can act as an innovative mechanism to address the national social, agricultural and environmental problems.

Social entrepreneurship in agriculture sector is facing many challenges, which are growing with time. The challenges may vary according to types, size, and nature, vision etc but they should be tackled effectively. There are few suggestive measures, which can be practiced to counter the prevailing challenges of agri-social entrepreneurship in India:

1. Availability of finance

Finance is the life blood of any enterprise so it should be available in all the stages of social entrepreneurship development from seed capital to sustenance capital. Most farmers are small and marginal and if they get finance during start up as well as in later stages then it would encourage them to become entrepreneurs.

Table 2: Agri-Social Entrepreneurship and their opportunities

| SI No. | Agriculture and allied enterprises | Opportunities/activities | Social enterprise examples |
|--------|---|---|--|
| 1 | Sustainable and organic farming | Herbal and aromatics crop production Commercial food crop farming Value addition | Organic Foods MSSRF, Suminter Organics |
| 2 | Farm input management | Seed production Fertilizers and Pesticides Power, irrigation, diesel | Barrix Agro Sciences Pvt Ltd., Aakruti Agriculture Associates |
| 3 | Crop management and Production | Commercial food crop farming Medicinal, aromatics and planting, Florist | Jain Irrigation Systems Ltd., IDEI, Aakruti Agriculture Associates |
| 4 | Post harvest Management | Agro processing and value addition Flour milling processing and packaging cold storages devices labeling, advertising | Star Agri, Digital green, Wingreen Farms, Ecozen |
| 5 | Dairy Management | Milk Production Milk products. Egg and meat production | AMUL, Cattle Mettle |
| 6 | Agri Decision Support Solution | Dissemination of information Capacity building, Agro meteorological advisory services | Farm 2 Food Foundation, Reuters Market Light |
| 7 | Waste recycling/reuse | Feed production, Vermicomposting Mushroom cultivation | Paperman, SAI |
| 8 | Livestock Management | Egg and meat production, Hatchery, Wool production | Cattle Mettle |
| 9 | Agro finance and Incubation and marketing support | Social incubation services Micro finance and insurance Value chain management and marketing logistics Contract farming, Cooperative farming | Mann Deshi Mahila Sahakari Ltd., skymet, Grameen bank, Entrepreneurs Associates and marketing support Agrostar, Ekgaon BASIX |
| 10 | Agricultural mechanization | Small Engine Repair Service, Tractor and Farm Equipment, Detailing, leasing, custom hiring | Aakruti Agriculture Associates, |
| 11 | Aqua farming | Fish and Fish related Production and Packaging, Fish, prawn, dry fish etc Raise and Sell Fishing Bait | |
| 12 | Agri-tourism | Ecotourism, Aquarium, Crop cafeteria, Herbal gardening | |

2. Awareness on agri-social entrepreneurship

The government, entrepreneur, stakeholder, NGOs must create mass awareness program through different mass communication media, social media, print media and media forum to raise awareness and knowledge about the role and significance of agri-entrepreneurship. Campaigns and exhibitions to create mass awareness about significance utility of social entrepreneurship, particularly rural youths, must also be taken up.

3. Systematic and deliberate policy formulation

Government should take more systematic and coherent policy initiatives to grow and develop the

agri-social entrepreneurship to achieve sustainable and economic goals. The policy should fulfil the mission of social entrepreneurs as well as the government democratic framework. The tax structure, marketing policy and education policy should be suitable to all the parties.

4. Proper exposure, training and skills enhancement

Inadequate knowledge and experience leads to non-social and unethical activities. Dedicated workers should be properly trained and provided exposure to other enterprises. Their skills and knowledge should be refreshed from time to time. For this purpose workshops, exhibitions and industrial visits must be

organized from time to time.

5. Availability of resources and technology

All type resources should be available and accessible to famers to motivate them to become agri-entrepreneurs. Government must take initiatives to ensure resources and technology reach more customers and provide services in difficult-to-reach markets.

6. Market led extension

Farmers and other stakeholders in the pre-harvest and post-harvest time should be led to market linked spots. Market-led extension may provide a platform to change the traditional mindset to entrepreneurial mindset.

Conclusion

Entrepreneurship development acts as a creative approach and strategy, which can solve a community's problem. Agri-social entrepreneurship development can facilitate sustainable local and regional development. In an era of globalization our economic policy, which has created favourable environment for growth must also lay emphasis on social security and food security. As agriculture is a challenging profession in the wake of erratic weather conditions, farmers must be motivated to take up agri-entrepreneurship ventures that would help the community as a whole. Rural youths and farmers should think entrepreneurship as a profitable, sustainable and social problem solving mechanism. Hence organizations and governments should come up with training and sustaining support systems providing all necessary assistance to motivate rural youths and farmers to adopt agri-entrepreneurship as a career option.

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“The success of the young entrepreneur will be the key to India’s transformation in the new millennium. ”

– Dhirubhai Ambani

Factors Influencing the success of Women Entrepreneurs in Factor driven Economies

AMANDEEP DHALIWAL

Women entrepreneurship has been growing significantly all over the world. But it has been seen that women owned businesses tend to underperform and has higher failure/closure rates as compared to businesses owned by men. As per GEM report (2017), 4 out of 10 women exit business in the initial stage itself in case of factor driven countries. This research therefore identified a list of factors from literature and empirically surveyed the women entrepreneurs to find out the factors that influence the success of women entrepreneurs in such economies. Findings of the study found that the Support Systems, Personal Orientation & Knowledge Base were the overarching factors having the most impact on the success of women entrepreneurs in such economies.

I. Introduction

India is shining. It has become a fertile ground for entrepreneurship. World Bank's Doing Business Report (2018) which measure aspects of business regulation that matter for entrepreneurship across 190 economies has ranked India at 77th Rank. India has jumped 30 positions to become the top 100th country in terms of ease of doing business ranking this year. The World Bank has recognized India as one of the top improvers for the year.

India has been improving significantly in its position at the World Economic Forum's (WEF) Global Competitiveness Index. India climbed up to 58th position in 2018; from the previous 63rd rank a year ago of the 140 surveyed countries as per Global Competitiveness Index (2018). Similarly, in the Global Innovation Index rankings (2018), India stood at 57th place among 130 participating countries. According to a report published in 2016 by the NASSCOM, India is home to around 4,750 start-ups and is ranked as the third largest start-up ecosystem globally. These start-ups have generated employment for about 85,000 people, and have secured funding of about USD3.8 billion. It is further estimated that by 2020, the number of start-ups will cross 10,000, with an employment generation for over 2 million in the country.

But there exists a strange dichotomy regarding the role and status of women in Indian Society. Since mythological times women have been considered a source of power and treated as goddesses both loved and feared. But at the same time the traditional society considered the real women of the house as a weaker sex and was accorded inferior status in family hierarchy burdened with household chores, bearing children and looking after the family.

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Women's entrepreneurship has been having a golden run. The Global Entrepreneurship Monitor (GEM) report (2017) found that women entrepreneurship has risen by 6% worldwide. Around 163 million women are starting or running businesses and 111 million were operating established (over three and a half years) businesses. Approximately 37 percent of enterprises in formal sector globally are women-owned entities. Thus women entrepreneurs are playing an increasingly vital role – socially, professionally and economically and this number is increasing every year. But in comparison to men, this number is still insignificant.

According to Sixth Economic Census released by the Ministry of Statistics and Programme Implementation, women constitute around only 14% of the total entrepreneurship i.e. 8.05 million out of the total 58.5 million entrepreneurs. Out of this, 2.76 million women constituting 13.3% of women entrepreneurs work in agriculture sector whereas 5.29 million women constituting more than 65% work in non-agriculture sector. The average employment in women-owned enterprises is a meager 1.67. The GEM Report (2017) specific to India reveals that only 7.6% Indian women are involved in early stage entrepreneurship, compared to 13.5% men.

The same reality was depicted by Mastercard Index of Women Entrepreneurs (MIWE, 2018), which stated that “markets that are less wealthy and developed tend to render comparatively less enabling conditions for women's advancement as entrepreneurs”. This is reflected in the very poor scores and ranking of India among the lower middle income group of countries. Of the total 57 surveyed countries across the world, it ranked India at 48 in Women Business Ownership, 54 in access to knowledge assets and financial access & overall a ranking of 52 out of 57 for Mastercard Index of Women Entrepreneurs.

Thus in this background it is very important to understand the women entrepreneurs are still lagging as compared to men. In less developed and factor-driven¹ economies such as India, it was seen that women do not have very supportive entrepreneurial environment, they have very low opportunities to rise in their careers as business leaders. The underlying conditions for women entrepreneurship are less favorable, and they face tremendous cultural bias. Thus it all affects their morale and the women tend to become less driven or able to grow their business and be successful. It was seen that women from lower income economies are more likely than other regions to underperform and have higher failure/

closure rates as compared to men owned businesses. They discontinue their businesses for reasons such as unprofitability or lack of finance (GEM, 2018). The business discontinuation rate was seen to be the highest in India (26.4%) compared to all the economies participating in the GEM Survey 2018.

Considering the increasing participation of women in economy, Kirby (2004) suggests that “we need to understand the nature and address the factors that are critical for women to succeed in independent business and to present a more realistic picture of what starting a new business entails”. Therefore it is of utmost importance to understand the factors that contribute to their growth, performance and success. Only after identification of such factors which are specific to Indian women entrepreneurs, can Indian government as well as the other developmental agencies develop policies and programs to encourage and promote the development of entrepreneurship amongst women and ensure their sustenance.

Review of Literature

An entrepreneur has been defined variously by authors. For some, entrepreneur is one who bears the risk, someone who coordinates resources (Say, 1803), discovers opportunities (Kirzner, 1997) or an innovator (Schumpeter, 1934). (Schumpeter, 1934), defined an entrepreneur as “an innovator or developer who recognizes and seizes opportunities; converts these opportunities into workable/ marketable ideas; value through time, effort, money or skills; assume the risks of the competitive marketplace to implement these ideas; and realizes the rewards from these efforts.”

(Moore and Butner, 1997), defined a female or a woman entrepreneur as “A woman, who has initiated a business, is actively involved in managing it, owns at least 50 percent of the firm, and has been in operation one year or longer”. (Das, 2000) states that woman entrepreneur is one who starts business and manages it independently and tactfully, takes all the risks, faces the challenges boldly with an iron will to succeed. (Wiklund & Shepherd, 2005) defined women entrepreneurs in terms of the stock of business that they hold. He claims that a woman is an entrepreneur if she owns at least 51% of stock of a business and controls the daily operations and management of a business. (Singh, 2014), defined women entrepreneurs as a woman or a group of women who initiates, organizes and runs a business venture. Government of India has defined woman entrepreneur as an enterprise owned and controlled

by a women having a minimum financial interest of 51% of capital and giving at least 51% of employment generated in the enterprise to women.

Entrepreneurial success for women

What is success? Oxford dictionary defines success as “the accomplishment of an aim or purpose”. This aim can be wealth, fame or social status or some other intrinsic goal. Majority of the studies on venture performance in academic literature tend to measure success on economic criterion alone (Chaganti & Parasuraman, 1997; Praag, 2003; Davidsson *et al.*, 2006). They utilize criteria such as profits and returns, growth in sales or income, growth in size of firm, increasing number of employees, growth in productivity and returns, survival time etc to measure success. (Walker & Brown, 2004), proclaims that, “Most discussion of success in the existing literature refers predominantly to financial criteria. Very limited attention is given to the issue of whether small business owners ever achieve their personal goals, which can often be their initial motivation for starting a business “

In case of women entrepreneurs it cannot be just defined in black and white monetary terms. (Manolova *et al.*, 2007), concluded that female entrepreneurs often seek outcomes and end results above and beyond economic growth while managing their ventures. Therefore success too should be seen in those terms. Different researchers have defined different measures of success for women other than traditional terms. Researchers in past have variously found that Self-employment (Marlow and Strange, 1994), Work Life Balance (Gate wood *et al.*, 2004; Reijonen & Komppula , 2007), Lifestyle preferences (Hakim, 2003), feeling of empowerment (Hisrich *et al.*, 2005), enhancement of quality of life (Ardrey *et al.*, 2006), are a often quoted to define success by women. In some of the other researches it has been found that women defined themselves a success as they were able to fulfill the aim or the purpose for which they started or set up their own businesses which are other than income or monetary profit. These motives /purpose includes factors such as personal independence, need for achievement, better work family balance, self-fulfillment (Lerner *et al.*, 1997). Similarly, (Manolova *et al.*, 2007) found that greater social status and social recognition in one’s community was the motivation for setting up the venture.

Therefore, it can be concluded that in case of women entrepreneurs the use of traditional success measures

such as profits, sales, number of employees, survival time, growth rate etc. would be a very myopic view of success rather it should accommodate the motivations and other personal factors in which terms women define success.

Factors influencing the success in worldwide studies

MIWE Report (2018) claims that though the number of women owned businesses are still small but still they are becoming more important players in the entrepreneurial landscape. Women are no more subservient or dependent upon men as the main wage earners rather they are making their own income.

In term of the factors contributing to success of women entrepreneurs, there have been a number of studies all over the world. Some commonly quoted success factors include Formal education & education level (Minnitti & Naude, 2010; Bender *et al.*, 2013), marketing skills (Carter, 2000, Chaterjee & Das, 2016), personal entrepreneurial competencies (Minnitti & Naude, 2010; Tinker *et al.*, 2013), Family’s emotional or instrumental supports (Lee and Choo, 2001), business background (Amarasiri, 2002), the organizational & HR setup and own managerial & decision style (Machado, Cyr, and, Mione, 2003), higher self concept and higher commitment to their business (Ehigie and Umoren, 2003), the young age, scanning intensity, past experience (Unger *et al.*, 2011, Mitchelmore & Rowley, 2013), need for control (Jain & Ali, 2012; Gupta & Mirchandani, 2018), social supports (Langowitz & Minniti, 2007), government policies and programmes (Sandberg, 2003) Networking (Mohammed, 2013; Mc.Cleeland *et al.* 2005, Bogren, 2013), usage of ICT technology (Ndubisi & Kahraman, 2006; Marlin & Wright, 2005) psychological characteristics of the entrepreneur (Sullivan and Meek, 2012), Self-efficacy, competitiveness and risk taking (Dawson & Henley, 2012), need for Achievement (Jain & Ali, 2012; Shmailan, 2016), Access to capital (Gatewood *et al.*, 2004; Kuzilwa, 2005; Towhidur *et al.*, 2013), Social & Cultural factors (Namdari *et al.*, 2012) and Mentors (Stavropoulou & Protopapa, 2013; Memon *et al.*, 2015), Work–Life Balance (Rehman & Roomi, 2012; Poggesi, *et al.*, 2015; Agarwal & Lenka, 2015)

Lerner and Hisrich (1997), studied Israeli female entrepreneurs in depth and categorized the five critical success factors as personal motivations, human capital, network affiliations, social influences, and environmental influences. (Ranasinghe, 2008), studied Sri Lankan women entrepreneurs and concluded other than the usual factors

such as personal psychological characteristics, early childhood experiences, education and learning, entrepreneurial capabilities and support systems an additional factor that is culture too has a role in success of venture. (Nawaz, 2009) found that innovativeness and risk, knowledge and access to IT, entrepreneurial training, government assistance, availability of capital and business experience contribute to success of Bangladeshi women entrepreneur.

(Akhilwaha & Havenga, 2012) in their study of South African women entrepreneurs found that social recognition, consumer satisfaction, diversification, personal freedom, and security play a key role in motivating them to continue running their businesses. (Jahed *et al.*, 2013) concluded that important factors contributing to success includes financing help, technological help, marketing assistance and business management.

Research Objective

The research regarding women entrepreneurs in India is still in nascent stage. The applicability of success factors in Indian context still needs to be studied, more so holistically. Recognizing this limited focus of existing research on success of Indian women entrepreneurs, the goal of the present study is to gain a better understanding of women entrepreneurs and their success factors. Based on past research and the theories of entrepreneurship, therefore the following exploratory problem was defined and set as research objective:

- To identify the most important factors that affect business success of women entrepreneurs in SMEs sector of India.

Methodology

The study was mainly carried out through survey method. A survey instrument that is a structured questionnaire was developed to capture information relating to the research objectives. The resulting questionnaire comprised of demographic and environmental information of the respondents and a set of variables to measure the most important factors contributing to their business success. The questions were set to measure the subjective perceptions of the respondents regarding success and their contributory factors to the success. It has been seen that subjective measures are the best method to capture the information, which may otherwise be difficult to access

especially in case of assessing success and its parameters (Perez and Canino, 2009). The survey instrument had both open ended and closed questions and the often used measuring scale deployed in some of the questions was Five point Likert Scale.

Other than the demographic and Environmental information seeking questions, the respondents were given a list of 23 variables and were asked to score importance of each variable as a contributory variable to success on the scale of least important to very important. All these variables had been found to influence success as confirmed from previous researches and literature review.

For the purpose of this study 250 women entrepreneurs involved in small microenterprises were conveniently chosen from the Delhi NCT region. Convenience sampling was utilized as there was no clear statistics available on the population of the target group. The developed questionnaire was distributed among the women micro-entrepreneurs. The questionnaires were then collected back after a period of 3 days. 221 questionnaires were received back out of which 208 were correctly filled in and were further analyzed.

Data Analysis

Once the distributed questionnaire were collected, the data from them was input into an excel sheet. The raw data was organized and arranged so that useful information can be extracted from it. The data was uploaded into *Statistical Package for the Social Sciences version 21 for further analysis*. The missing values and incomplete value cases were removed. Data analysis for this study incorporated descriptive statistics and Factor Analysis.

A: Descriptive Statistics

Profile of the Respondents: Data was analyzed and some of the basic descriptive found that (As given in Table 1) majority of women that is 46.2% of women respondents were in age group of 31-40 yrs. Further 86% of women were married, 8% were single and remaining was widowed. 36% of women were found to be graduates and 11% had at least studied till secondary level, 7% women had undergone vocational training. Before starting their business majority that is 73% of women were found to be housewife's who had now set up their own businesses to run. The initial Idea for setting up the business was either its own (44.9%) or prodded by their

husbands (35.8%). Very few women had been advised by their family or friends.

Table 1: Profile of the respondents

| Factor | Particular | Frequency | Percent |
|--------------------|--------------------------------------|-----------|---------|
| Age | 21-30 | 56 | 26.9 |
| | 31-40 | 96 | 46.2 |
| | 41-51 | 35 | 16.8 |
| | 51-60 | 21 | 10.1 |
| Marital Status | Single | 16 | 7.7 |
| | Married | 178 | 85.6 |
| | Widowed | 14 | 6.7 |
| Education | Primary | 6 | 2.9 |
| | Middle School | 28 | 13.5 |
| | High School | 26 | 12.5 |
| | Secondary School | 22 | 10.6 |
| | Polytechnic/Vocational/ Technical | 14 | 6.7 |
| Past experience | Graduation | 75 | 36.1 |
| | Post Graduate | 37 | 17.8 |
| | Student | 23 | 11.1 |
| | Employed | 17 | 8.2 |
| Initial Idea | Unemployed | 16 | 7.7 |
| | Housewife | 152 | 73.1 |
| | Friends | 11 | 5.3 |
| Initial Investment | Myself | 90 | 43.3 |
| | Spouse | 75 | 36.1 |
| | Family owned | 32 | 15.4 |
| | Friends | 11 | 5.3 |

(Source: Author- Present study)

Business Profile - In majority of the cases (79%) women were found to be independent owners of their own businesses rest were in partnership. Majority of businesses were new and were found to be located at home and residences (62%). It was seen that 78% of women respondents had set up and invested in their ventures from their personal savings. Around 4.3% women had availed the loan facility from Bank. Please see table 2 for further details.

Table 2: Business Profile

| Factor | Particular | Frequency | Percent |
|----------------------------|-----------------------------------|-----------|---------|
| Ownership | Own 100% | 164 | 78.8 |
| | Own more than 50% | 17 | 8.2 |
| | Own 50% | 24 | 11.5 |
| | Own less than 50% | 3 | 1.4 |
| Venture Age | 1-3 | 88 | 42.3 |
| | 4-7 | 77 | 37.0 |
| | 8-11 | 7 | 3.4 |
| | 12 – 14 | 0 | 0.0 |
| | 15 yrs or more | 36 | 17.3 |
| Location | At home | 128 | 61.5 |
| | Small Office | 71 | 34.1 |
| | Factory | 9 | 4.3 |
| | Corporate Office | 0.0 | 0 |
| Initial Investment | Personal Saving | 163 | 78.4 |
| | Household Funds/Inheritance | 14 | 6.7 |
| | Borrowed from Relatives & Friends | 22 | 10.6 |
| No. of employees Initially | Loan from Banks | 9 | 4.3 |
| | 1-3 | 152 | 73.1 |
| | 4-7 | 46 | 22.1 |
| | 8-11 | 10 | 4.8 |
| | 12-14 | 0 | 0.0 |
| No. of employees currently | 15 & more | 0 | 0.0 |
| | 1-3 | 103 | 49.5 |
| | 4-7 | 77 | 37.0 |
| | 8-11 | 13 | 6.3 |
| | 12-14 | 12 | 5.8 |
| Initial Investment | 15 or more | 3 | 1.4 |

(Source: Author- Present study)

In the initial years the women entrepreneurs mostly started with max.1- 3 employees. There was no business (0%) which had been set up with more than 15 employees but there were some businesses (5%) which currently employed even 15 employees or more as given in Table 2.

Business Performance Status - 62.5% of women claimed that their business was stable and they were satisfied vis a vis 37.5 % businesses were growing and none of the business were declining. Around 68% women looked forward to growing and expanding their present business while 29% had plans to acquire new business. None of the women wanted to start another business venture of their own. Around 55 % of businesses were making moderate profits. Around 9 % were in moderate loss buy none (0%) was in high loss category. On the positive side 9% of women were making profits. Out of 208 women 187 women felt they were successful only 21 believed they

Table 3: Business Performance Status

| Factor | Particular | Frequency | Percent |
|-------------------|-----------------------|----------------|---------|
| Business Growth | Growing | 78 | 37.5 |
| | Stable | 130 | 62.5 |
| | Declining | 0 | 0.0 |
| | Other | 0 | 0 |
| | Business Future | Grow/Expansion | 141 |
| | Acquire new business | 29 | 13.9 |
| | Maintain present size | 38 | 18.3 |
| | Start New Business | 0 | 0.0 |
| Financial Success | High Loss | 0 | 0 |
| | Moderate Loss | 19 | 9.1 |
| | Break Even | 56 | 26.9 |
| | Moderate Profits | 114 | 54.8 |
| | High Profits | 19 | 9.1 |
| Success | Yes | 187 | 89.9 |
| | No | 21 | 10.1 |

(Source: Author- Present study)

were unsuccessful and had miles ahead to achieve. Please see table 3 for further details.

B. Data Purification & Factor Analysis

Factor analysis is a multivariate statistical procedure that has mainly three uses .Firstly to reduce a large number of variables into a smaller number of factors. Secondly, to establish underlying dimensions between measured variables and latent constructs so as to form or refine a theory. Lastly, for self-reporting scales, it provides construct validity proof (Thompson, 2004).

For testing the appropriateness of usage of factor analysis for this particular study KMO & Bartlett's test is used (as given in Table 4). The KMO index ranges from 0 to 1, with 0.50 considered suitable for factor analysis (Tabachnick & Fidell, 2007)

Table 4: KMO and Bartlett's Test

| | | |
|--|--------------------|----------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .728 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 1200.417 |
| | Df | 45 |
| | Sig. | .000 |

(Source: Author- Present study)

The result shows that the test value of KMO is 0.728, and p value of Bartlett test is less than 0.05, which demonstrates that the collected data of the women entrepreneurs is appropriate for factor analysis. The Chi Square is approximately 1200 with 45 degrees of freedom. In case of the Bartlett's Test of Sphericity the observed significance is .000, which means the relationship between variables is strong.

In the first step for data purification the collected data was subjected to factor analysis to find out the most the important factors that influence women entrepreneurs. To achieve the preliminary solutions Principal Component Analysis was applied along with Varimax rotation. In the second step for data reduction the anti-image correlation matrix was analyzed and the variables whose value was less than 0.50 on the diagonal axis were deleted first. Then the communalities table was checked and variables whose extracted communalities were less than 0.5 were deleted.

The rotated component matrix were examined and the variables whose values were less than 0.5. Further any variables with factor loading less than 0.5 and Eigen value less than 1.0 were ignored for the further analysis. Lastly, the variables, which had double loading, were ignored. For purpose of analysis Variable Vocational training was ignored as it was equally loading on to two factors. Variable marketing strategies is considered as it weakly loaded on to factor 1 as compared to Factor 3.

After the application of few rounds of factor analysis the number of variables reduced to ten which loaded on to three different factors with acceptable factor loading and

communalities. The overall variance explained as follows in table 5.

From this table it was seen that only 3 factors have eigenvalue greater than 1. So these three factors were used for analysis. And these first 3 factors combined account for 72.455 of the total variance. Factor 1 account for a variance of 40.47% of total variance. Factor 2 accounts for 19.89% of total variance. Factor 3 accounts for 12.09% of total variance. The Rotation Sum of Squared Loading gives the variances associated with the variables are not explained unless all the factors are retained.

Table 5: Total Variance Explained

| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | |
|-----------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 4.452 | 40.470 | 40.470 | 4.452 | 40.470 | 40.470 |
| 2 | 2.188 | 19.892 | 60.362 | 2.188 | 19.892 | 60.362 |
| 3 | 1.330 | 12.093 | 72.455 | 1.330 | 12.093 | 72.455 |
| 4 | .895 | 8.139 | 80.593 | | | |
| 5 | .613 | 5.573 | 86.167 | | | |
| 6 | .395 | 3.592 | 89.758 | | | |
| 7 | .338 | 3.070 | 92.828 | | | |
| 8 | .252 | 2.292 | 95.120 | | | |
| 9 | .218 | 1.981 | 97.101 | | | |
| 10 | .187 | 1.704 | 98.806 | | | |
| 11 | .131 | 1.194 | 100.000 | | | |

Extraction Method: Principal Component Analysis. (Source: Author- Present study)

Factor Analysis was done the following in which Principal Component Method and the Rotation method was Varimax with Kaiser Normalization. Based on these following rotated Component Matrix was extracted as given in Table 6.

Findings of the study

The nine variables loaded on to overall three factors which have been identified that are contributing to success of women entrepreneurs of Delhi NCT. The Factor 1 consisted

of three variables having mentor with a factor loading of .849, having support of networks & memberships of associations with a loading of .844 and lastly role of govt. Policies and subsidies with a loading of .776. Since all the factors consisted of conducive factors for success hence factor 1 was called as Support Systems. The variables need for control with a loading of .887, need for achievement with a loading of .880 and need for work life balance with a loading of .849 loaded on to factor 2. Since these variables together depict personal orientation

Table 6: Identified factors with variables that affect women entrepreneurship success

| Factor | Variable | Factor Loading | Cronbach Alpha value | AVE | CR |
|------------------------------------|------------------------------------|----------------|----------------------|------|------|
| Factor 1 (Support Systems) | Mentors | 0.849 | 0.826 | 0.68 | 0.86 |
| | Support Networks & Memberships | 0.844 | | | |
| | Role of Govt. policies & Subsidies | 0.776 | | | |
| Factor 2 (Personal Orientation) | Need for Control | 0.887 | 0.861 | 0.76 | 0.91 |
| | Need for Achievement | 0.88 | | | |
| | Need for Work –Life Balance | 0.849 | | | |
| Factor 3 (Knowledge Base) | Usage of ICT technologies | 0.885 | 0.791 | 0.63 | 0.84 |
| | Education | 0.812 | | | |
| | Marketing strategies employed | 0.673 | | | |

(Source: Author- Present study)

therefore factor 2 was named Personal Orientation only. & lastly the three variables the usage of ICT technologies with a loading of .885, Education of entrepreneur with a loading of .812 and Marketing strategies employed with a loading of .673 loaded on to factor 3. Since the three variables education of women entrepreneur, their knowledge of ICT and their formulation of marketing strategies impacted business operations hence they were called Knowledge Base.

The Cronbach Alpha was calculated factor for all three individual factors to check the internal consistency of each. The calculated Cronbach Alpha for Factor 1 was 0.826 & CR & AVE values were 0.68 & 0.86 respectively, for Factor 2 was 0.861 while CR & AVE values were 0.76 & 0.91 respectively and for factor 3 was Cronbach alpha was .0791 while CR & AVE values were 0.63 & 0.84. Cronbach's alpha value was found to be reliable as value of Cronbach's alpha for all the constructs exceeded the benchmark of above 0.7 and CR and Ave values were above 0.5 (Nunnally & Bernstein, 1994).

Findings of the study

The nine variables loaded on to overall three factors which have been identified that are contributing to success of women entrepreneurs of Delhi NCT. The Factor 1 consisted of three variables having mentor with a factor loading of .849, having support of networks & memberships of

associations with a loading of .844 and lastly role of govt. Policies and subsidies with a loading of .776. Since all the factors consisted of conducive factors for success hence factor 1 was called as Support systems. The variables need for control with a loading of .887, need for achievement with a loading of .880 and need for work life balance with a loading of .849 loaded on to factor 2. Since these variables together depict personal orientation therefore factor 2 was named Personal factors & lastly the three variables the usage of ICT technologies with a loading of .885, education of entrepreneur with a loading of .812 and marketing strategies employed with a loading of .673 loaded on to factor 3. Since the three variables education of women entrepreneur, their knowledge of ICT and their formulation of marketing strategies impacted business operations hence they were called Operative Factor.

The Cronbach Alpha was calculated factor for all three individual factors to check the internal consistency of each. The calculated Cronbach Alpha for Factor 1 was 0.826, for Factor 2 was 0.861 and for factor 3 was .0791. Cronbach's alpha value was found to be reliable as value of Cronbach's alpha for all the constructs exceeded the benchmark of above 0.7 (Nunnally & Bernstein, 1994).

Discussion of the findings

There are number of factors that affect women entrepreneurial performance and success. The results of

the present study identified the three most important factors which are (a) Support systems (b) Personal Orientation and (c) Knowledge Base.

Support system consists of the individual, groups and the government's role as being support systems to women entrepreneurs leading to their growth and success. Women entrepreneurs especially within the Indian social set up needs a lot of hand holding and support. They have faced traditional social constraints since centuries therefore they feel less confident by themselves. Hence need guidance by the role models and mentors who can help them find their feet (Laukhuf & Malone, 2015). Similarly being member of associations and other women networks is also an important aspect as they learn from other women not only business ropes but also become aware of new opportunities and gain knowledge from other entrepreneurs (Farr-Wharton & Brunetto, 2007). Lastly government policies and subsidies are critical to development of women entrepreneurship as they encourage them and the special schemes provide them the opportunities where the other financial institutions show no confidence in them. Thus having sufficient support system is important.

The second factor that is critical to women success is their personal orientation. In the present study it was seen that women felt that the higher the need for control, need for achievement and the need for work life balance higher would be success. Such need to be independent and balancing work and life commitments (Itani *et al.*, 2011) would drive their zeal to pursue their goals passionately, thus it impacts their success. Thus, factors like own ambitions for control and achievement and independence to balance their personal and professional life should be recognized and further cultivated amongst women while being selected for various entrepreneurship programs and trainings.

Another factor recognized from the present study was knowledge base of women entrepreneurs. Their own education & know-how especially of latest technologies, based on which they form the utmost important marketing strategies tend to impact their business operations and affect their success. Thus encouraging women education and providing knowledge of latest ICT is important for promoting women entrepreneurs. Women have been found to be lagging in using ICT technologies for their entrepreneurial ventures (Papastathopoulos and Beneki, 2010: DDO, 2013). "ICT can provide effective tools to support economic activities. ICT, especially mobile phones,

computers, and the internet, have become essential to develop business and enhance competitiveness" (ITU, 2013). Having appropriate marketing strategies can make or break a business. It can directly impact the success of a business venture. Thus, women entrepreneurs should be taught not only the latest technologies but also their utilization especially from marketing perspective. Having sound marketing policies can lead to potentially successful ventures (Njoki, 2016).

Conclusions & Future research

With changing times women have been successful in breaking their confinement within the limits of their homes. Globalization and spread of education have ushered in a new era of progress of women world over. Women nowadays are recognized as important contributors to the economy and development of nation. Especially in developing countries such as India, which not only has world's largest young population, but also high unemployment rate of 4.8%. More than 30% Indian youth (aged 15–29) are neither in employment nor in education or training as per an OECD Report 2017. Women entrepreneurs can therefore, not only generate wealth and contribute to national economy and but also act as potential source of much required employment opportunities.

Therefore government, policy makers, quasi government and private institutions, NGO's working for women empowerment should work on these factors and variables to provide conducive environment to ensure success of women entrepreneurs. The study presents and recommends development of sustainable policies and programs to encourage women entrepreneurship through recognizing the personally ambitious potential of women, encouraging their education and knowledge of the latest tools and techniques and building supportive systems for ensuring success of their entrepreneurial ventures.

Though a lot of research on factors affecting women entrepreneurs has been carried out in foreign countries but in the Indian context such studies are few. Therefore future research can be carried out in understanding the impact of each of the factors individually to a women entrepreneur's success especially in Indian context. Further, impact of various support programs, training programs and educational programs can be measured empirically to see the effectiveness of each on success of women business owners.

Notes :

¹ According to WEF's classification, the factor-driven economy is dominated by subsistence agriculture and extraction businesses, with a heavy reliance on (unskilled) labour and natural resources. The classification of economies has been adapted from *Global Competitiveness Index 2017*, published by the World Economic Forum.

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"Don't worry about being successful but work toward being significant and the success will naturally follow."

— Oprah Winfrey

Women Entrepreneurs in India Set to Spread their Wings in the Corporate World

RUCHI GUPTA

Women constitute 48.5% of the country's population. According to the Sixth Economic Census released by the Ministry of Statistics and Programme Implementation they constitute around 14% of the total entrepreneurship. Women entrepreneurship is largely skewed towards smaller sized firms, as almost 98% of women-owned businesses are micro enterprises. The paper deals with women entrepreneurs in the current global scenario and their status as per sixth economic census (2013-14). It further deals with various government initiatives towards promoting and encouraging women entrepreneurs, identifying the challenges and offering few suggestions which may help overcome the barriers to women entry in corporate world.

"Women are the largest untapped reservoir of the talent in the world"

– Hilary Clinton

Introduction

As per National sample Survey Office (NSSO), India at present is the nation with youngest people where 50% of its population (total population over 130 crore) with an estimate 470 million people are of working age.¹ As per the census 2011, women constitute 48.5% of the country's population. Of the 48.5% chunk, 2/3rd women are not directly involved in the productive workforce, which would otherwise have contributed towards the economic growth and development of the country.

"Global economic output would increase by up to \$28 trillion by 2025 if women were to participate in the economy at the same rate as men. Cash in women's hands has a ripple effect on development outcomes. Evidence shows that women spend more on children's food and education when they have more control over household income". (IFC Annual Report 2016) "A report by the World Bank says that India can grow in double-digits if more women participate in the product line of the Indian economy". (Economic Times-20th Nov 2017). "As of now, entrepreneurship in India is still dominated by small business and enterprises who account for over 75 per cent of employment in the manufacturing sector and dominate over 90 per cent of the establishments across the country". (Economic Times-20th Nov 2017) According to Sixth Economic Census released by the Ministry of Statistics and Programme Implementation, women constitute around 14% of the total entrepreneurship. Across the world, women face significant barriers to joining the workforce and the cost to the economy is immense.

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NEED FOR THE STUDY

Entrepreneurs provide self-employment and also employment for others thereby serve the society. They form micro, small and medium enterprises (MSMEs) and take them to greater heights by becoming big corporate houses. MSMEs are set up in rural, semi-urban and urban areas and they have the potential to absorb the employable population. "There are nearly three million micro, small, and medium enterprises with full or partial female ownership. Collectively, these women-owned enterprises contribute 3.09 percent of the industrial output and employ over 8 million people. Women entrepreneurship is largely skewed towards smaller sized firms, as almost 98% of women-owned businesses are micro enterprises." (IFC, 2014)

In the last few decades women have significantly contributed in the development and social progress of the country due to education, awareness and also the availability of opportunities due to industrialization and urbanization. They are able to create a balance in their personal and professional lives and have created their own social identity. According to the data from the National Association of Women Business Owners (2017), more than 11 million U.S. firms are now owned by women, employing nearly 9 million people and generating \$1.7 trillion in sales.

Objective of the Study

The main objective of the paper is to study about the history of women entrepreneurs, their current global scenario and status as per the sixth economic census (2013-14). The paper further deals with various government initiatives towards promoting and encouraging women entrepreneurs, identifying the challenges faced by them in India. The paper also offers few suggestions, which may help in overcoming the barriers to women entry in the men dominated corporate world.

Methodology

For the purpose of the study, descriptive methodology has been adopted and for auxiliary information, books, journals, articles, published reports of RBI, Census, Survey, MSME reports, newspapers, research journals, websites, government portals have been referred to.

Women Turning Entrepreneurs

Entrepreneurs are seen as business leaders, innovator of new ideas and business processes who assumes all

the risk and rewards of business. A woman or a group of women who initiate, organize and run a business enterprise are defined as **Women Entrepreneur**. She is innovative, confident and creative, looks for economic independent individually or collaboratively and above all generates employment opportunities for others. The Government of India (2009) has defined women entrepreneur as "an enterprise owned and controlled by a woman/women having a minimum financial interest of 51% of the capital and giving at least 51% of the employment generated in the enterprise to women". The entrepreneurial function is classified into three categories- risk bearing, organization and innovations. In our country 48.5% of the population comprises of women. If this resource is tapped then it can contribute towards the economic growth of the country.

Entrepreneurs are regarded as economy changer as they help shape the economy through wealth creation and absorb human resource by providing varied job opportunities and creation of new products and services. One of the most important contributions of an entrepreneur is the creation of new products, which creates value for social economic system. Entrepreneurship has been a male dominated domain where entry of women was basically due to push or pull factor. Push factors refers to a situation whereby family situation compelled a woman to start a business to support her kin. The pull factor is when the women out of choice, inclination and an urge to be part of the corporate world become an entrepreneur.

In our modern society work of women is confined to the four walls of the home. Men are regarded as the earning member and they started business for earning money, growth opportunities, profit enhancement etc. Women basically turned entrepreneurs to meet their personal goals- success, achievements, accomplishments and most of the time the adverse situations would compel them to earn and support the family. On deeper analysis of the various aspects of the society one finds that in - home responsibilities of married women, motherhood, lack of experience, practical knowledge, information and above all deep rooted traditional barriers cut into the years of starting an enterprise by women in comparison to males. "Women contribute about 22 per cent of our GDP, the worldwide average is close to 44-45 %. For India to grow at 9-10 per cent for three decades consistently and reap the dividend of demographic advantage, promoting

entrepreneurship among women has to be the key strategy". (Business Line, July 16, 2016.)

History of Women Entrepreneurs

In the 17th century, Dutch colonists operated under a matriarchal society which inherited money and land and became business owners. At that time Margaret Harden Brooke Philipse, was one of the most successful women. She was a merchant, a ship owner and was involved in trading of goods. During the 18th century women owned business like brothels, alehouses, taverns and retail shops which were not perceived as good profession. It was during the 18th and 19th century that women came in the front and emerged into the public eye. Rebecca Lutens in 1825 took the family business of iron work and converted it into a profit generating steel business.

In 1900, due to progressive thinking and rise of feminism, women entrepreneurs began to be widely acceptable by the society but they serviced mostly the female consumers. In 1920 women gained right to vote. Slowly with progress in societal way of thinking female/women entrepreneurs became more influential. During the Great Depression women were again reverted to the traditional role of housekeeping and motherhood. The World War II women entered the work force to fill the job that men left to serve the military. During 1950 the public concern for domesticity of women made her manage both home responsibilities and their career. During this time home based business offered solution in striking a balance between home and office.

From 1960 to late 70's saw a change with divorce case rising leading to situations which required self-independence of women but they were not well received. This paved way for entrepreneurial development of women to get self employed and also to provide employment opportunities for other women work force. The 1980's and 1990's was a time when the society wholeheartedly accepted women entrepreneurs and acknowledged the valuable contribution they made. The period witnessed the focus on networking opportunities in the world of women entrepreneurs. Various groups, organizations came forward to extend support to entrepreneurs through seminars and other awareness programmes but they are far behind in comparison to male counterparts. The IT revolution in 1990 acted as a catalyst to boost the growth of women entrepreneurs. It provided a market and a platform to showcase the skill and make their presence felt at the

national and international level. Since 2000, women have made their mark in small and big ventures but the obstacles still remain.

Review of Literature

Johar (2015)-The study focused on the development of women entrepreneurs in Ghaziabad city. Competition with the developed nations requires equal participation of men and women in the economic growth of the country. Apart from economical and financial support from the government, women require motivational support from the family. The paper dealt with the growth and performance of women entrepreneurs in India, the challenges faced by them. The factor that motivates women to become a successful entrepreneur is achievement, motivation and human relation.

Dr. Vijayakumar, A (2013)- Women have the capacity to contribute in the overall economic development of any nation. Therefore, the programmes and policies must not be confined to just encouraging entrepreneurship but also help support entrepreneurial culture amongst the youth. The paper focuses on the role of the media in entrepreneurial development by creating and highlighting all such platforms which bring out the creativity and innovation among women. Women entrepreneurs must be equipped with the skills and traits to meet the challenges of the global market. They should be competent to sustain and strive in the local economic arena.

Sharma, Yogita (2013)- In a male dominated society women are assumed to be economically as well as socially dependent. Women entrepreneurs face problems like lack of education, social barriers, legal formalities, high cost of production, male dominated society, limited managerial ability, lack of self confidence etc. Women have the potential and caliber to hold and supervise their own set up. The need is to provide them family and society support as they can contribute towards the economic progress of the country.

Kumbhar, V (2013)- The problem faced by women entrepreneurs are lack of awareness, low ability to bear risk, absence of ownership of property, lack of freedom to take financial decisions, lack of balance between family and career, lack of self confidence, mobility constraints etc.

Mahajan, Shikha (2013)- Major change is required in the traditional attitude and mindset of people in the Indian society rather that creation of opportunities for

women entrepreneurs. The need is to design programmes that would address attitudinal changes, imparting training and other supportive services. Women must be made aware about her existence, her identity and her contribution towards the economic growth and development of the country. The curriculum for the early childhood must impart basic knowledge about entrepreneurship and the traits required.

Upadhye, Jayashree (2012) - An analytical study was carried out which arrived at the conclusion that the self-confidence, self-esteem, educational level, and knowledge help women strike a balance between home and professional work. The need is to have government and institutional support to develop the potential among the women. The government initiatives need to be implemented properly and potential women entrepreneurs must be aware of those schemes.

Kumari, S (2012) –The paper analyzed the various problem faced by women entrepreneurs and stated that women must come out of the drudgery of housework and express their creativity through entrepreneurship.

Goyal (2011)- Participation of women as entrepreneurs has increased at a considerable rate and efforts are being taken to promise equality of opportunities to Indian women. But the government sponsored development activities have benefitted only a small section of women and that too the urban middle class. The need is to take effective steps to provide entrepreneurial awareness, orientation and skill development programs to women.

Sarbapriya and Ishita (2011) The study discussed about the status and problems of women entrepreneurs and emphasized on the significant difference between men and women entrepreneurs on following grounds- perseverance, potentiality and ability to work hard and the abilities specific to emotional intelligence.

Mehta and Mehta (2011) The study focused on the creation of favorable atmosphere for promoting women entrepreneurs. It further stated that there is a bright prospect for rural women entrepreneurship in India.

Kumbhar and Kumbhar (2011) The study emphasized on development of women self owned enterprises through Self help groups (SHG's) and discussed the problems faced by women entrepreneurs, which includes start up finance, access to technology, marketing and management skills and lack of confidence.

Tambunan (2009) The study focused on the recent developments of women entrepreneurs in small and medium enterprises in Asian developing countries. Asian developing countries SMEs are gaining overwhelming importance but low representation is mainly due to factors like low level of education, lack of capital and cultural constraints. The study revealed that most of the women entrepreneurs in SMEs are forced entrepreneurs seeking for better family incomes.

Darrene, Harpel and Mayer (2008) The study showed that self-employed women differ on most human capital variable as compared to the salary and wage earning women. The data from the Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC) from 1994 to 2006 was taken for the purpose of analysis of the study.

Singh (2008) The study conducted identifies the reasons & influencing factors behind entry of women in entrepreneurship. The barriers to growth of women entrepreneurship are lack of interaction with successful entrepreneurs, family responsibility, social and cultural barriers, gender discrimination, low priority given by bankers in provide loans to women entrepreneurs. Measures were also suggested which were promoting micro enterprises, unlocking institutional frame work, etc. The study also advocates for ensuring synergy among women related ministry, economic ministry and social & welfare development ministry of the Government of India.

Barwa (2003) Women face problems due to social and cultural gender based inequalities and biases. They have limited access to formal education, ownership of property, mobility limited information, limited knowledge of marketing strategies, lack of networking facilities and no access to training programmes.

Karim (2001) A study was conducted on women entrepreneurs in Bangladesh and it was found that particularly in the rural areas women faced financial problems. Other problems were competition, procurement of quality raw material from the market and striking a balance between the enterprise and the family stated that there is a bright prospect for rural women entrepreneurship in India.

Current Global Scenario

Global Entrepreneurship Index (GEI) indicates the overall entrepreneurship attitude and potential of a country. The data in the Table-1 depicts that in GEI 2018 India

Table 1: Global Entrepreneurship Index (GEI) - 2018

| COUNTRIES | RANK | GEI-2018 |
|----------------|-----------|------------|
| United States | 1 | 84% |
| Switzerland | 2 | 80% |
| Canada | 3 | 79% |
| United Kingdom | 4 | 78% |
| Australia | 5 | 75% |
| Denmark | 6 | 74% |
| China | 43 | 41% |
| India | 68 | 28% |

Source: Global Entrepreneurship Index (GEI) – 2018

stands at 68th position with USA topping the list. Earlier in 2014, India stood at 76th position. This is a positive sign and depicts that there has been improvement in the attitude and entrepreneurial potential of the country.

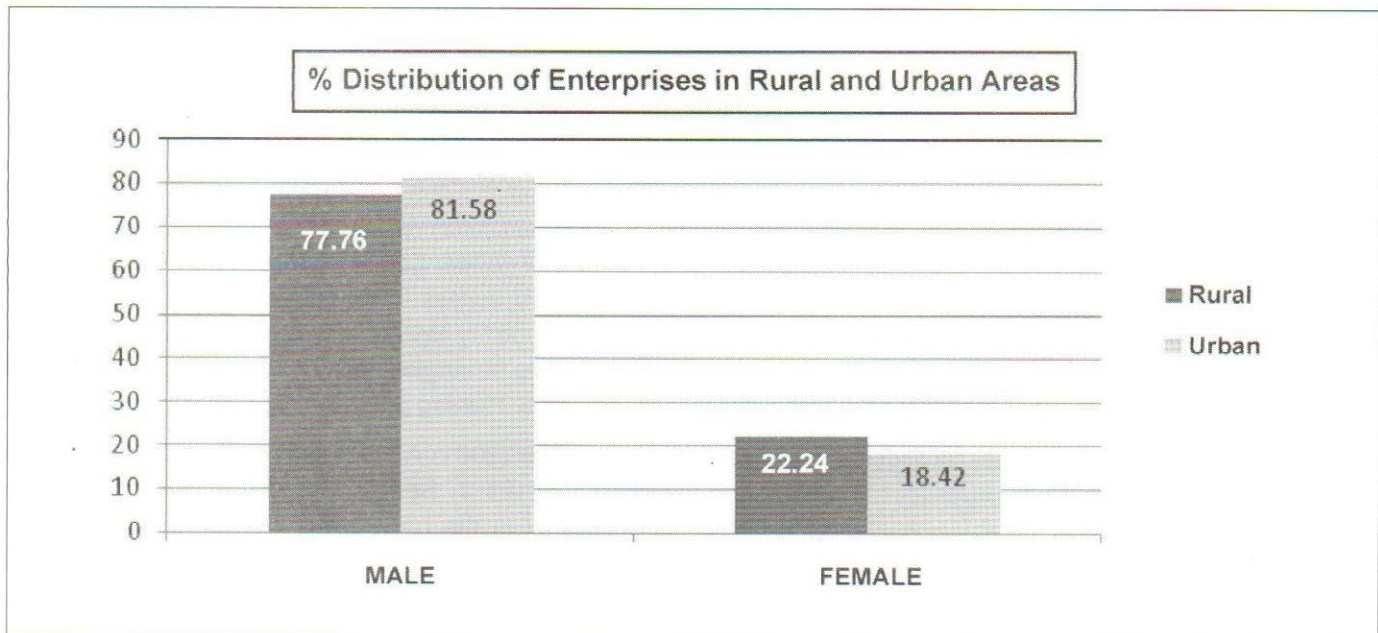
A study conducted for the **Mastercard Index of Women Entrepreneurs (MIWE)** revealed that India ranked 52nd among 57 countries, USA ranked 8th and China 27th, which clearly suggests that in India women entrepreneurs are less favorable as compared to other countries.

Table 2 exhibits that there has been predominance of male owners in proprietary MSMEs. They owned 79.63% of enterprises in comparison to females who owned only 20.37% enterprises in MSMEs. In the urban area

Table 2: % Distribution of Enterprises in Rural and Urban Areas (Male/Female)

| SECTOR | MALE | FEMALE | ALL |
|--------|-------|--------|-----|
| Rural | 77.76 | 22.24 | 100 |
| Urban | 81.58 | 18.42 | 100 |
| All | 79.63 | 20.37 | 100 |

Source: MSME Annual Report 2017-18, (pg.26)



female entrepreneurs are 18.42% lower than the rural, which stood at 22.24%. The reason being women in rural are more willing to start enterprises to support their family and gain financial independence.

Table 3. exhibits that male dominates the Micro, Small and Medium Enterprises (MSMEs) ownership-

79.63% as compared to females which is only 20.37%. The data focuses on the lack of women participations in the MSMEs, which is regarded as engine of growth for the economy. Women own more micro enterprises (20.44%) in comparison to small enterprises (5.26%) and medium enterprises (2.67). The data reveal that in the rural areas,

Table 3: % Distribution of Enterprises by Male/Female Owners

| CATAGORY | MALE | FEMALE | ALL |
|----------|-------|--------|-----|
| MICRO | 79.56 | 20.44 | 100 |
| SMALL | 94.74 | 5.26 | 100 |
| MEDIUM | 97.33 | 2.67 | 100 |
| ALL | 79.63 | 20.37 | 100 |

Source: MSME Annual Report 2017-18, (pg.26)

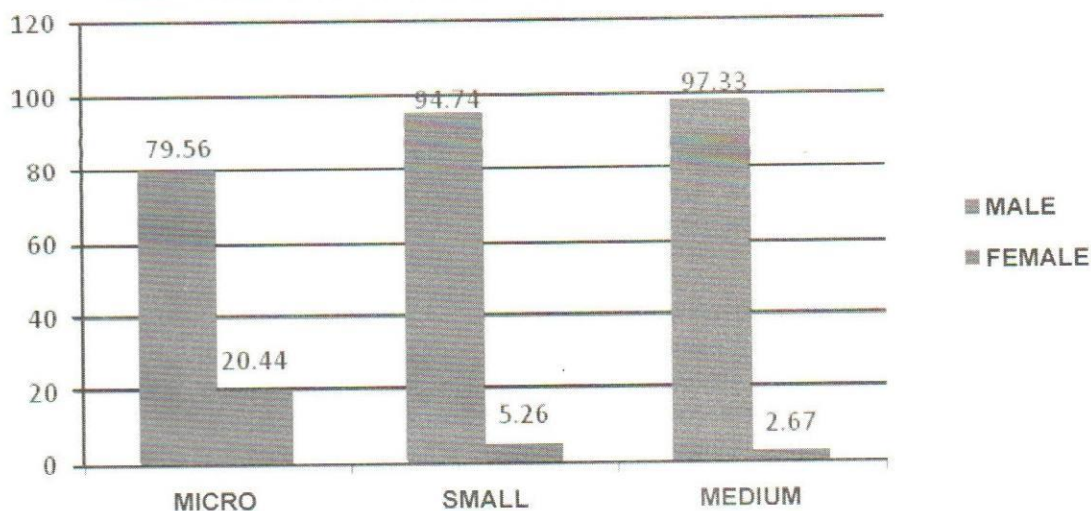
women are more inclined to self owned enterprises. The participation of women in Small and Medium Enterprises (SMEs) is low which requires government motivation and initiatives.

Women Entrepreneurs Status as per Sixth Economic Census (2013-14)

- Total number of establishments owned by women entrepreneurs was 8.05 million (13.76%), out of the 58.5 million entrepreneurs.

- These establishments provided employment to 13.45 million persons (10.24%), out of which 83.19% were without hired workers.
- Out of total Self Help Groups (SHGs) which were 0.19 million, women Owned Establishments were 89%.
- Out of total establishments under women entrepreneurs, 34.3% belonged to agricultural activities, and 31.6% share belonged to livestock.
- In case of non-agricultural activities owned by women entrepreneurs, manufacturing and retail trade dominated with the share of 29.8% and 17.8% respectively.
- Tamil Nadu held the largest share (13.51%) in number of women establishments, followed by Kerala (11.35%), West Bengal (10.33%) and Maharashtra (8.25%).
- The average employment per establishment for women self owned establishment was 1.67%.

% Distribution of Enterprises by Male/Female Owners



Government Schemes and Initiatives

Since economic liberation in 1991, government has taken various initiatives to promote entrepreneurship and growth. Various programmes like MSME development organizations, nationalized banks and NGO's are catering to the need of potential women entrepreneurs who lack

education, knowledge and skill to start an enterprise. The government has opened various portals for women entrepreneurs, which provide a network for nurturing them and help them in creating business models for low cost product and services. It also provides a platform for entrepreneurial learning tools, training programmes for fund

raising, incubation facility, market survey and technical assistance.

Several organizations are there to help women entrepreneurs explore, financial support, mentoring, providing market linkages and other important business aspects to start up an enterprise both in rural as well as in urban areas. They provide support through micro finance, business loans, CSR initiatives. One of the basic requisite of setting an enterprise is availability of capital. To meet this essential requirement the government and financial institutions provide loans and financial assistance to women entrepreneurs which are flexible, hassle free, collateral free and have low rate of interest. Some of the

schemes run by the government and financial institutions are as follows:

- **Mudra Yojana Scheme for Women** – This is a government sponsored scheme which provides loans to women who want to start small enterprises and business like-beauty parlour, tailoring, tuition centers etc.
- **Trade Related Entrepreneurial Assistance and Development (TREAD) Scheme** – This scheme is offered by Micro, Small and Medium Enterprises (MSMEs) for women entrepreneurs in order to promote them and provide trade related training, information and counseling activities. TREAD enables credit availability to women through non-government

Table 4: Year-wise Performance of Tread Scheme

| Sr. No | Year | Expenditure/Gol grant released (Rs. in Lakh) | No. of Women beneficiaries assisted for self employment |
|--------|--------------------|--|---|
| 1 | 2007-08 to 2011-12 | 521.41 | 25530 |
| 2 | 2012-13 | 138.79 | 11168 |
| 3 | 2013-14 | 233.40 | 5455 |
| 4 | 2014-15 | 254.20 | 8265 |
| 5 | 2015-16 | 190.77 | 3500 |
| 6 | Total | 817.16 | 28388 |

Source: MSME at a Glance 2016(pg.66)

organizations (NGO's). The government has been providing continuously grants (Table 4) and has benefitted 28,388 women till 2015-16 through TREAD scheme.

- **Annapurna Scheme** – This scheme caters to the needs of those women entrepreneurs who set up food catering industry. The amount granted under this scheme is used for working capital needs of the business (purchasing utensils and kitchen related tools and equipments)
- **Stree Shakti Package for Women** – This scheme is offered by all SBI branches to those women who have 50% share in the ownership of a business and they have taken part in Entrepreneurial Development programme (EDP).
- **Bhartiya Mahila Bank Business Loan** – This scheme is for the budding young entrepreneurs looking for venture in retail sector.

- **Dena Shakti Scheme** – Dena bank provides loan to women entrepreneurs in the field of agriculture, manufacturing, micro credit, retail stores or small enterprises.
- **Udyogini Scheme** – Punjab National Bank (PNB) provides loan under this scheme to women entrepreneurs involved in agriculture, retail and small business enterprises.
- **Cent Kalyani Scheme** – The Central Bank of India provides loans to support women starting a new venture or for the modification or expansion of the existing one.
- **Mahila Udyan Nidhi Scheme** – This scheme by PNB aims at supporting women in Small scale industries (SSI).
- **Orient Mahila Vikas Yojana Scheme** – This scheme is provided by the Oriental bank of Commerce to those women who hold 51% share

capital either individually or jointly in a proprietary concern.

- **Rashtriya Mahila Kosh (RMK)** – This RMK is set up Under the Ministry of Women and Child Development which provides micro credits to women in the informal sector. The loans are provided to Intermediary organizations (IMO) which further lend it to Self help group's (SHG's).
- **Stand-Up India Scheme** – This scheme is set to promote women entrepreneurs from SC/ST tribes. It not only helps women in creating a start up but also helps those start-ups which have been recently set up.
- **Support to Training and Employment Programme (STEP) for Women-** STEP scheme provides skill training to women that helps them become employable and also develop competencies and skill that enable her to become self-employed or an entrepreneur.

Challenges Faced by Women Entrepreneurs

There are various obstacles that are faced by women entrepreneurs in our country. Some of them are as follows:

- **Lack of family support** – In our Indian society women are expected to perform duty towards the family and spending money on herself is not welcomed. Getting her married is considered more important by her parents and after marriage the support of her husband and family greatly affects her entry into setting an enterprise.
- **Lack of initial funding** – Finance is an essential ingredient for an enterprise. Women face shortage of funds to finance their entrepreneurial potential as they have no or less funds at their disposal. They do not have any say in the property of the family and their access to external source of finance is restricted by the norms of the financing agencies.
- **Lack of marketing strategies** – Women entrepreneurs with limited capital are not able to expand their business and take advantage of the market changes. They are considered less efficient in creating an organizational set up and lack marketing strategies to exploit the market.
- **Lack of education** – As per the Census 2011, the literacy level of women in India is just 65.5% which is low in comparison to men (80%). This is one of

the prominent factors that kill the instinct of a woman that she too can contribute towards the economic growth of the country. Lack of education leads to lack of information and an urge to use the skill and knowledge towards providing services to the society.

- **Male dominance** – Ours being a male dominated society, men are considered more intelligent and capable to take decisions on every matter. Though during the last few years there has been a positive change in our society but still women are not considered capable of running an enterprise and taking financial decisions.
- **Lack of confidence** – Due to lack of moral support from the family, friends and society women entrepreneurs lack confidence in initiating an enterprise in fear of incurring losses, which may further create problems for them.
- **Lacks of market information** – Many women have the capability but due to lack of proper and timely information about the changing market trends they find it difficult to incorporate the changes in their business strategy.
- **Lack of motivation** – To motivate women to start a new venture it is not only the family that needs to change its mindset but the government policies, plans, financial incentives and society at large, all should make a conducive environment that motivates a women to come forward and contribute towards the growth & development of the country.

Suggestions

- The key roadblocks to equality among males and females entrepreneurs are the cultural bias and lack of financial support and services, the need is to **change the mindset of the people and society** at large with regard to women and treating her at par with male.
- **Loan repayment** should be spread for a longer period of time to pass over the gestation period.
- A certain % of the **total orders** placed by the Public Sector Enterprises should be allotted to women entrepreneurs.
- **Tax exemptions must be provided to the purchaser** who purchases products and services from enterprises run by women.

- At initial stage of their business, the **government must provide market for their products** and for rural women entrepreneurs the government must place orders to keep the business running. Marketing agencies must be set up by the government.
- Women fail to recognize their potential. The **need is to conduct awareness programme**. Prospective women entrepreneurs must have a platform to discuss the area of business, its viability, financial assistance, budget and all important information required to initiate the business.
- **Training programme must be conducted continuously** to encourage, motivate and groom women entrepreneurs.
- Women are **not aware about the skill development programmes, vocational training** and ties up of government and private agencies to assist entrepreneurial development. They need to be made aware through various sources of media.
- The need is to **cultivate a business friendly environment** whereby women participation in the workplace is increased and they access post secondary education and financial services.
- **Easy and hassle free loan and financial assistance** would encourage women to start their own enterprise.
- **Quick helplines and other facilities** promptness would add to women entrepreneurs' scope of spreading out their wings in the corporate world.

Conclusion

Apart from several social barriers, access to resource like credit, technology and market, lack of adequate knowledge and skill to tap the opportunities, stringent business and government regulations are some of the key impediments that undermines women's ability to take advantage of entrepreneurial opportunities. The government has been continuously involved in encouraging and motivating women entrepreneurs through special incentives and subsidies. Yet, there is a huge gap that exists between males and female entrepreneurs, which needs to be bridged not by the government plans, incentives and subsidies but most importantly with a change in the mindset of people and society at large.

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"I call myself an accidental entrepreneur. I was all set to take up a brewing job in Scotland when a chance encounter with an Irish entrepreneur led me to set up a biotech business in India instead."

– Kiran Mazumdar-Shaw

Paving the Way for Transformational Future - Women Entrepreneurs in Uttar Pradesh

NOMITA P. KUMAR

This paper venture into the issue of what propels women into entrepreneurial activity: Is it due to economic or social pressure, or are they attracted to it? While the number of woman entrepreneurs are on the rise in India, but experts have different views on what is driving this surge. The study surveyed a sample of 300 women entrepreneurs. While drawing the sample care was taken to cover women entrepreneurs from different types of business activity and different size/categories in terms of capital and employment, and those who had at least three years of experience and employing more than two workers. Pre-coded interview schedule was administered to gather the required information about their family background, socio-economic conditions, push and pull factors involved, problems and constraints etc.

1. Introduction

There is paradigm shift in the context of female employment as we find a new breed of female entrepreneurs on the rise, who are venturing to fulfill their desire of being independent and seeking financial liberty. Keeping their desire intact they are venturing into activities which were traditionally suitable activity for women. Some may not be labelled as entrepreneurs, “but in a variety of small ways, entrepreneurship is blossoming at the smallest unit of change,” said Desai (2018).

Interestingly, we note that becoming an entrepreneur gives women much greater flexibility as compared to employment in a regular job. Setting up one’s own enterprise doesn’t require fixed hours like a job and hence there is greater control over one’s time and possibility to operate from home. Also, one does not work as subordinate to anyone and hence is not answerable to others. Socially too, as some women pointed out, this makes things easier for some of the traditional hesitation that exists about having to mingle with and follow the instructions of other men, do not apply. Desai notes that “One can see a restless urge, an itch that must be scratched, a sense that deep inside the self, lies untold potential that must somehow get harnessed. This surplus ambition that powers entrepreneurialism is a vital palpable force that can be seen among women of all ages and classes across the country today” (Desai, downloaded on September 17, 2018).

Over the past decade, women entrepreneurs have taken the reins in the business world with the intention to fulfill their desire of being independent and be an equal partner in development. Women entrepreneurs run the gamut from small, home-based enterprises to powerful companies in partnership. There are still certain challenges on their path

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to entrepreneurship, but they are invariably changing the game by creating new business environment and new jobs along with an urge to shape and grow the economy.

While the number of women entrepreneurs is on the rise, experts have differing views on what is driving this rapid growth. According to the National Women’s Business Council, female entrepreneurs often fall into two categories: those who want to exploit a market opportunity and those who go into business for themselves after realizing the traditional labor force does not offer options that cover their basic economic needs (National Women’s Business Council, 2017). Women are choosing both the traditional (toy making, pickle making, candle making, etc.) as well as the non-traditional (garment shop, beauty-parlour, computer-training, school management, etc.) activities and are performing well. Though some women start businesses out of necessity and others out of passion, they are continually learning how to make it work and how to meet the demands of today’s changing economy.

This paper ventures into the issue of what propels women into entrepreneurial activity: Is it due to economic or social need, or are they attracted to becoming an entrepreneur? Such entrepreneurial activity depends upon demand and supply for the entrepreneur, which in turn depends on the demand and supply of the product/service (Mittal and Gupta, 2007). Thus the entrepreneur’s demand is a derived demand which remains subdued due to many unfavorable social enigmas that exists.

While the number of woman entrepreneurs are on rise and is a recent phenomenon in India, experts have different views on what is driving this upswing. There are

pull factors such as a desire to make independent decisions. Bounded by household chores and domestic responsibilities, many women choose to become entrepreneurs for the challenge and as an urge to do something new. On the other hand push factors compel women to begin business activities due to family and economic compulsions.

Objectives of the Study

The present study examines:

- The motivational factors that influence the growth and arena of activity of female entrepreneurs, delineated between pull and push factors.
- To identify problems unique to women in setting up and running their enterprises and analyzing the causes of their relative success and failure.

2. Methodology

The survey covers only micro and small enterprises employing less than 20 workers. Single worker enterprises and enterprises depending wholly on family labour have been excluded from the survey. Only those units were surveyed which have been in existence for more than two years. Special efforts were made to cover enterprises owned/managed by women with a view to identify the motives behind for setting up an enterprise. The sample was stratified in terms of type of activity and location of the entrepreneurs. The study was confined to the organized sector in selected urban centers, as it was not possible to carry out the study in all the districts (Table 1).

Table 1: Details of Establishments in Selected Districts

| Variables | Ghaziabad | Lucknow | Kanpur Nagar | Sub-Total | Uttar Pradesh |
|--------------------------|-----------|---------|--------------|-----------|----------------|
| Establishments | 43257 | 58134 | 58312 | 159703 | 1176006 |
| Rural | 8218 | 7674 | 6171 | 22063 | 500630 |
| Urban | 35039 | 50460 | 52141 | 137640 | 675376 |
| Percentage shares | | | | | |
| Establishments | 3.68 | 4.94 | 4.96 | 13.58 | 100.00 |
| Rural | 1.64 | 1.53 | 1.23 | 4.41 | 100.00 |
| Urban | 5.19 | 7.47 | 7.72 | 20.38 | 100.00 |

Source: Fifth Economic Survey- UP

The urban centres of Lucknow, Kanpur and Ghaziabad show major concentration of industrial establishments (57 per cent) in Uttar Pradesh. Hence, we selected Lucknow, Kanpur and Ghaziabad as the area of study as shown by Table 1. These are the districts where 2000 & above women entrepreneurs can

be located (Third Census of SSI-UP). The units where women entrepreneurs in terms of “women managing and owning enterprises” were concentrated were selected for primary survey. This eliminated cases where women were owners of the enterprise, but someone else was managing this.

Table 2: Sample Selection

| Variables | Ghaziabad | Lucknow | Kanpur Nagar | Sub-Total | Uttar Pradesh |
|-------------------------------|-----------|---------|--------------|-------------|---------------|
| No. of Women Enterprises | 2214 | 2069 | 2238 | 6521 | 72667 |
| Percentage share to UP | 3.05 | 2.85 | 3.08 | 8.97 | 100.00 |
| Sample | 100 | 100 | 100 | 300 | |
| Percentage share to sub-total | 1.53 | 1.53 | 1.53 | 4.60 | |

Source: Third SSI Census, Uttar Pradesh.

The study surveyed a sample of 300 women entrepreneurs, which pertains to approximately 5 per cent of the total women owned enterprises in the selected districts, 100 each from the selected urban centers (Table 2). While drawing the sample care was taken to cover women entrepreneurs from different types of business activity and different size/categories in terms of capital and employment and also those who had at least three years of experience and employing more than two workers. Pre-coded interview schedule were administered to cull the required information about their family background, socio-economic conditions, push and pull factors involved, problems and constraints etc.

3. Motives behind becoming a Business Owner

Different approaches are followed to understand the motives behind venturing into different business activities of entrepreneurship and, thereby, ‘break through traditional ways of doing things’¹. Notwithstanding numerous studies on entrepreneurial traits, there are no ‘well-defined psychological attitudes or profiles that describe all entrepreneurs or characteristics to which entrepreneurs generally conform’². As Amar Bhide puts it, ‘There is no ideal profile. Entrepreneurs can be ‘gregarious or taciturn, analytical or intuitive, cautious or daring’ (Bhide, 1994). Some theoretical explanations as put forward by the NKC study - of what motivates entrepreneurs include the following:

- Primarily for ‘Achievement Orientation,’ meaning that one ventures just to fulfill their desire to achieve³.

- The interrelation between religion, norms, values, behaviour and the economy in a particular epoch⁴.
- The ability to comprehend opportunity, i.e. ‘to reinterpret the meaning of things, fit them together in new ways’ and ‘see what others may have missed, such as an unsatisfied demand’ (Marris, 1968)⁵.
- The capacity to sustain a high degree of interest in the advancement and technological development of the industrial process and in the improvement in the scale of industrial operations⁶.
- The ability to make the best of what one has, in order to get what one needs, i.e. the capacity to innovate in figuring out the best ways to reach the market with minimum expenditure of time, effort and money⁷.

The NKC study confirms that there is no single motivating factor that triggers the decision to become an entrepreneur and the significant ‘Motivation Triggers’ of this study in Uttar Pradesh are in conformity to the NKC study: ‘**Independence**’ (stemming from the freedom to do ‘one’s own thing’), ‘**Market Opportunity**’, ‘**Family Background**’ in Entrepreneurship, a ‘**New Idea**’ (with business potential), the prospect of ‘**Challenge**’ offered by Entrepreneurship as well as a long cherished ‘**Dream Desire**’ to become an entrepreneur (Govt. of India, 2008).

‘Internal’ factors (such as independence, challenge and dream desire, i.e. the idea that ‘by nature, man cannot

but be an entrepreneur') cumulatively account for the bulk of the total motivational triggers. This explains the argument that these entrepreneurs are driven more by their own inner desire rather than by any external conditions. At the same time, as elaborated in the paragraphs that follow, 'market opportunity' as an additional motivating factor has also shown a steady rise over the last two decades. Such a scenario gives credence to the argument that overall macro environment plays a crucial role in influencing the initial decision of an individual to become an entrepreneur. What were the principle motives that led the entrepreneurs in our sample into business ventures? McClelland's paradigm of achievement motivation, backed by some Indian researchers (Rao and Pareek, 1978) who have stressed on this aspect, was of little explanatory value to us unless we could identify the basic source of the urge to achieve business success on the part of our sample women entrepreneurs.

Issues raised were – did these women take to entrepreneurship because of they wanted to become one or were they forced into it because of economic or family compulsions, or due to lack of any employment possibilities? To put it otherwise, were they drawn to entrepreneurship because of pull or push factors? Pull factors may be showing brighter side of the situation or opportunities being too attractive to be ignored by the perceiver, while the push factors denote a response born out of extraneous compulsions (Dhameja, 2002).

Our team asked the respondents about specific reason for venturing into a career which involves so much risks and uncertainties. To highlight this issue Table 1 (see below) tries to capture the major motives behind venturing into the particular enterprise. The table shows that 'Interest/ inclination to do businesses' were the most dominant motive for 20.37 per cent of respondents. These 24 per cent respondents can be distinctively said to be attracted due to "Pull" factor and hence ventured into taking up the recent activity as their profession. Some 17.65 per cent respondents opined that they took up for 'tapping market opportunities' as the prime motive, 31.26 per cent said that they started to work in pursuit of 'Financial liberty' and 14.22 per cent took up to entrepreneurial activity to comply with the "Advice of husband/parents/ relatives". Further, some 10 per cent respondents said that their foremost motive was to follow their 'Dream Desire' in accordance to their capability.

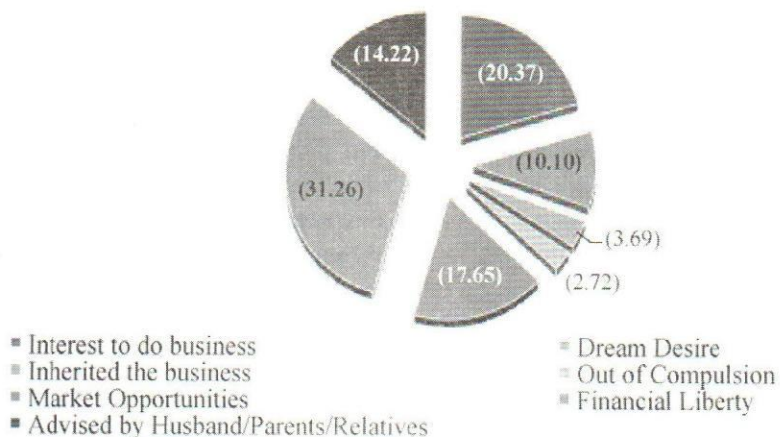
The above table shows that family members, either parents or husband having business played a vital role in inspiring women (12.38 per cent) to become entrepreneurs. This section shows that the occupation of 38.4 percent of the father of women entrepreneurs was business. In case of husbands' occupation as business, the percentage was found to be 62.5. It is a significant finding that 20 per cent of woman entrepreneurs started their business with a view to having self dependency and 15 per cent for economic freedom. A number of women

Table 3: Respondents Distributed According to Their Motive for Starting an Enterprise (No. & %).

| District | Interest to do business | Dream Desire | Inherited the business | Out of Compulsion | Market Opportunities | Financial Liberty | Advised Husband/ /Parents/Relatives | Total |
|------------------|-------------------------|--------------|------------------------|-------------------|----------------------|-------------------|-------------------------------------|----------|
| Lucknow | 78 | 49 | 19 | 9 | 75 | 101 | 51 | 382 |
| | (20.42) | (12.83) | (4.97) | (2.36) | (19.63) | (26.44) | (13.35) | (100.00) |
| Kanpur | 69 | 46 | 13 | 5 | 69 | 129 | 48 | 379 |
| | (18.21) | (12.14) | (3.43) | (1.32) | (18.21) | (34.04) | (12.66) | (100.00) |
| Ghaziabad | 85 | 20 | 10 | 17 | 57 | 126 | 63 | 378 |
| | (22.49) | (5.29) | (2.65) | (4.50) | (15.08) | (33.33) | (16.67) | (100.00) |
| Total | 232 | 115 | 42 | 31 | 201 | 356 | 162 | 1,139 |
| | (20.37) | (10.10) | (3.69) | (2.72) | (17.65) | (31.26) | (14.22) | (100.00) |

Source: Based on Primary Survey.

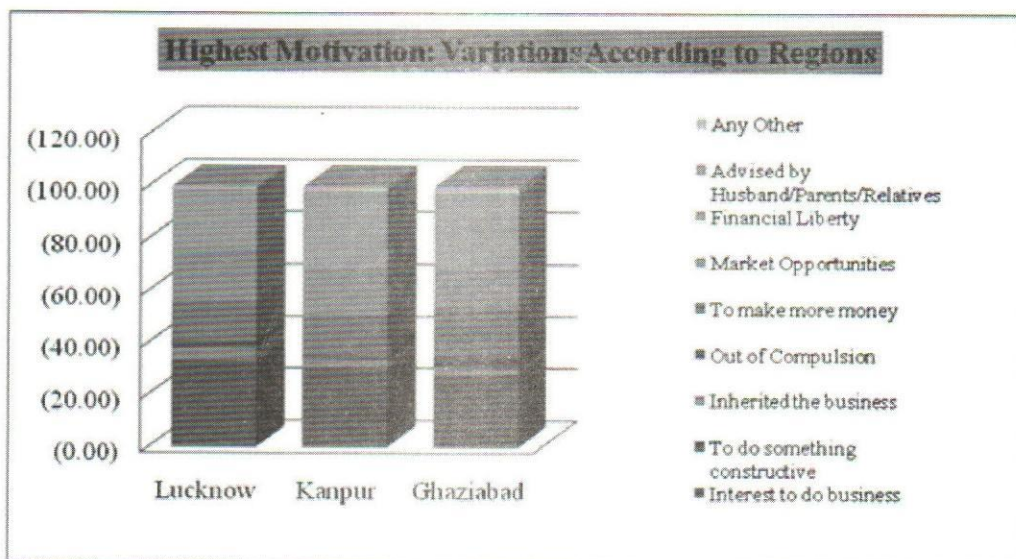
Motives for Starting an Enterprise



(16.51 per cent) become involved in business to earn extra money for family. Friends also played a vital role for some women (9 per cent) involved in business. Three per cent of the respondents became entrepreneurs because they did not have any alternative. Only 12 per cent of woman entrepreneurs interviewed told that they were inspired by husbands/parents/ relatives.

a. Variations in Motivation Triggers

The NKC Study also reveals interesting variations across region, gender, age, family background, time period and levels of work experience. A similar exercise was carried out here for our study too.



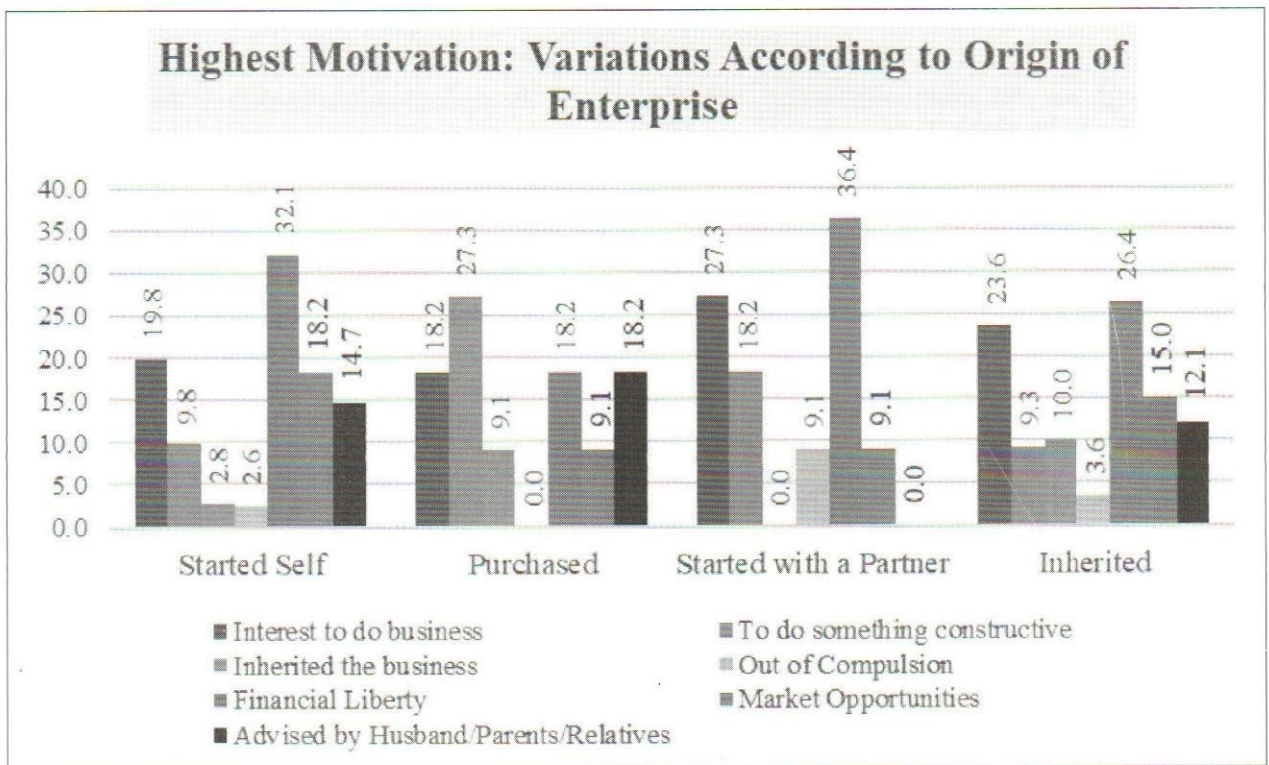
i. **Variations According to Region:** The most significant motivating trigger for entrepreneurship was found to be wide ranging across regions – from ‘interest to do business’ being the prime trigger in Ghaziabad and Lucknow to ‘financial liberty’ serving as the most important motivator in Kanpur. Kanpur

has been a traditional trading and business hub that may explain greater influence of family background as a prime trigger. In Ghaziabad, the seeds of entrepreneurship were sown by migrants belonging to traditional business communities from other parts of Uttar Pradesh once this area developed as the recent

industrial hub of India being nearer to the national capital. On the other hand, Lucknow a centre of educational excellence has emerged as an attractive centre for knowledge entrepreneurship, driven by increasing service sector. Interestingly, entrepreneurs from all the selected districts valued 'market opportunities' as a trigger more than other factors. Only a small proportion of women took to entrepreneurship under the 'compulsion' due to ill-fate. For female entrepreneurs, the independence derived from entrepreneurship in terms of financial liberty, adding more to family pocket, as well as the effective tapping of market opportunities are the most important motivators.

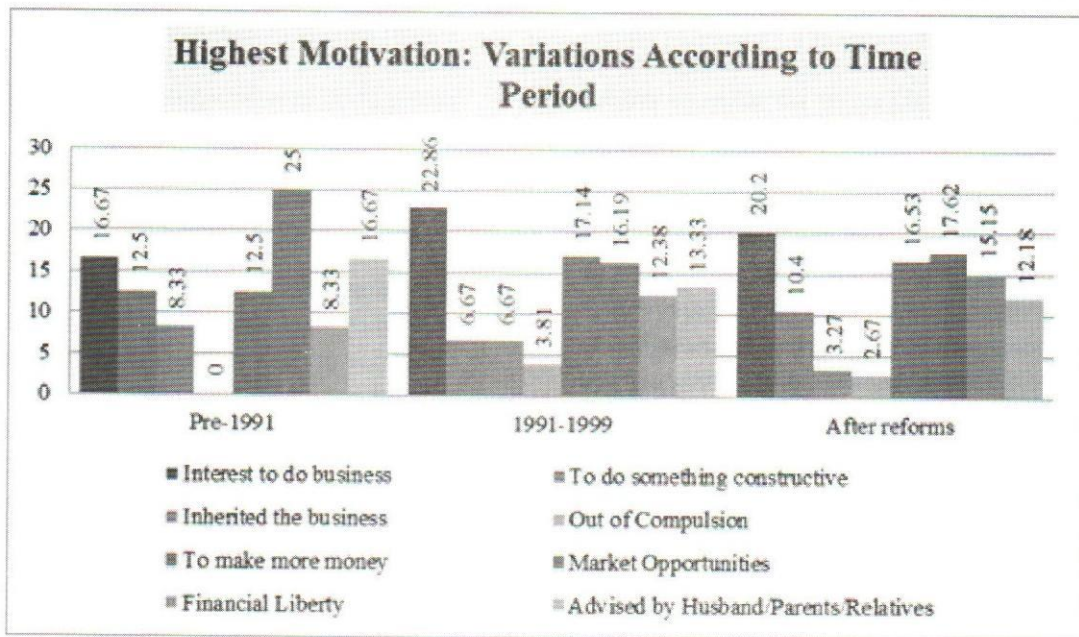
above the age of 55 and exert a minimal influence on those below 25. Further, 'to have monetary opportunity' is a far significant motivating factor for the below-25 age-group compared to those above that age. Respondents claimed that to have financial liberty and in order to utilize market opportunities effectively led them to opt for entrepreneurship.

- ii. **Variations According to Age:** 'Interest-driven' motivators are more significant for entrepreneurs
- iii. **Variations According to Origin of the Enterprise:** The study found that 'Interest to do business' is the most powerful motivator for the entrepreneur who started with a partner (20 per cent), while it has almost 30 per cent found it significant in motivating entrepreneurs who purchased. Predictably, 'Inherited' is the prime motivating factor among the entrepreneurs, whether in the same family business



or in a different one, though the extent to which it serves as a motivation trigger varies significantly. Further, 'to do something constructive' is a more significant motivator for the entrepreneurs who purchased enterprise with doing business. This may be because the entrepreneur who ventured into the business with self motivation is more likely to be influenced by market opportunities and in pursuit of more money that extols in Entrepreneurship.

- iv. **Variations According to Time Periods:** Prime motivator found was 'market opportunity' for entrepreneur who started before 1991. 'Interest to do business' has become an increasingly significant motivating factor during 1991-1999 and also since the economic liberalization took place. 25 per cent of entrepreneurs in the sample who started enterprises pre-1991, 16.7 per cent during 1991-99 and 17 per cent of those starting after 2000 cited 'market

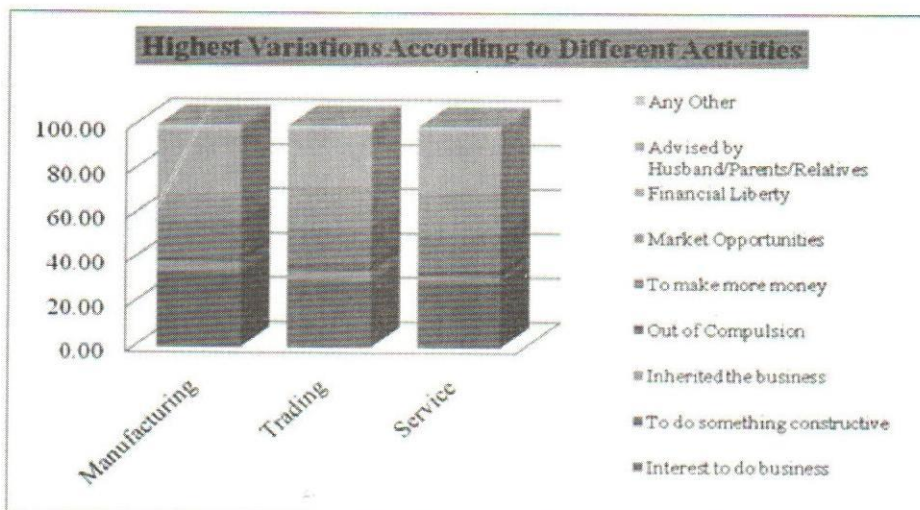


opportunity' as the main motivating factor. Simultaneously, 'financial liberty' has increasingly become a significant motivating factor during this period — primarily motivating 15 per cent of those starting new enterprises after 2000, 8 per cent before 1991 and 12.3 per cent of those doing so during 1991-99. The study also noticed that 'making money' has served less as a motivating factor before 1991 but turned out to be heavy motivator after the initiation of economic reforms — from primarily motivating 17 per cent of the entrepreneurs.

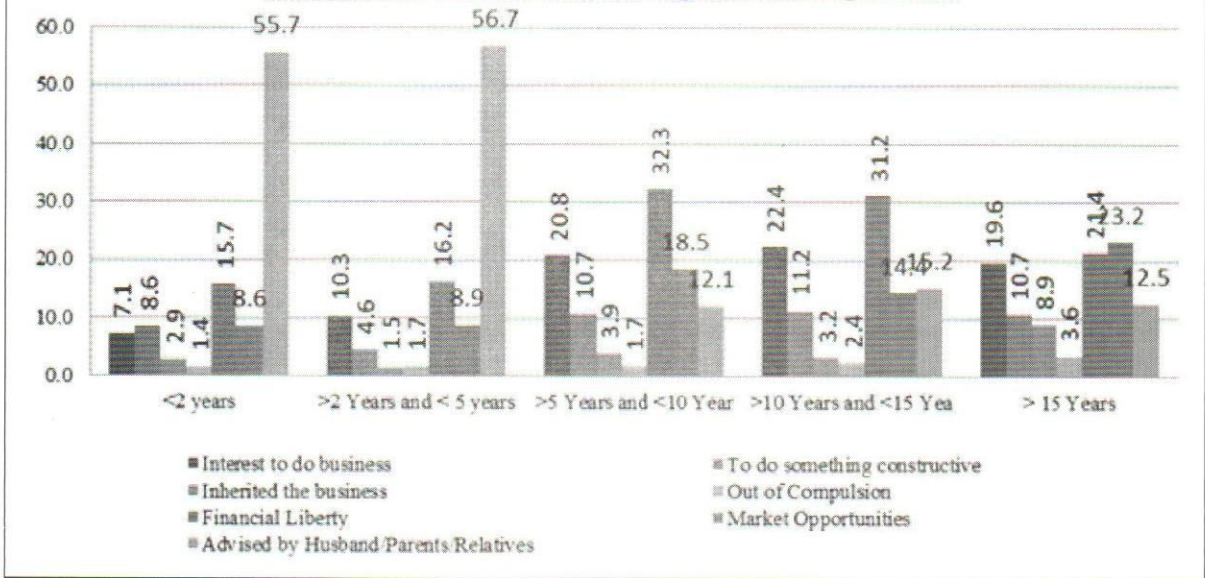
- v. **Variations According to Activity Type:** Taking stock of motivational variations according to different activities show that the prime movers for women

entrepreneurs has been their 'deep rooted interest' in the field of business be it manufacturing, trading or service ventures. '**Market opportunities**' seems to work strongly for trading and service sector units as compared to manufacturing and its worth noting as well. 'Intention to mint money' played crucially for all types of activity in our sample and seeking 'financial liberty' propelled many (16 per cent) entrepreneurs into manufacturing and 15 per cent into growing services sector.

- vi. **Variations According to Levels of Work Experience:** The study found that levels of work experience significantly influenced motivational factors as shown in the graph.



Motivation: Variations According to Work Experience



- i. It was found that 'Interest to do business' became less significant with increasing levels of work experience. While this was the most significant trigger for those entrepreneurs who started out without work experience, it was the least important motivational factor for those with more than 10 years' experience, for whom other factors such as 'advice from husband/ family' and 'inheritance' were more significant.
- ii. 'Financial liberty' was the least important trigger for those entrepreneurs who started out without work experience and the most important factor for those with 2-10 years of work experience before venturing as entrepreneurs.
- iii. The study found that 'market opportunity' did not act as a significant trigger for those who started out without or with less than 2 years of work experience but became the most important motivating factor for those with more than 2 years and less than 10 years' work experience.

b. Prime Motivators in Terms of Facilities

The entrepreneurs were asked to mention three most important factors motivating them to set up their enterprise. Their responses are summarized in Table 2. Advice from family and friend (26.93 per cent) was the most important factor mentioned by entrepreneurs in this connection, followed by Availability of market (23.43 per cent), family

acquired skill (15.52 per cent), Easy access to finance (13.67 per cent) and familiarity with business (11.41 per cent). These five factors together accounted for over 90 per cent of the total responses. Advice of family members, friends, bank and government officials, availability of infrastructure and government incentives were among the other factors mentioned in this connection. It is important to note that government incentives played a very insignificant role in motivating entrepreneurs to set up their business.

As shown in Table 3 higher proportion of entrepreneurs (around one-third) in case of manufacturing enterprises mentioned self motivation as the most important factor influencing them to set up the unit as compared to entrepreneurs owning service sector units (above 40 percent). Husbands motivated some 30 per cent of our respondents in starting small enterprises as they realized the need of the present economic environment prevailing. Family support (motivated) some 22.24 per cent of women entrepreneurs in setting the business Advice of government officials and government incentives played no role for starting small enterprises.

c. Positive Factors that Incites More women Entrepreneurship

When our team visited the field and asked entrepreneurs: 'Do you think women have more entrepreneurial opportunities available for them due to changing social attitudes?', it was reported that most entrepreneurs

Table 4: Responses about Factors Motivating Setting up of Enterprises (%)

| District | Advice from Family Friends | Advice of Govt. Officials | Government Incentives | Easy Access to Finance | Availability of Market | Family Acquired Skill | Familiarity with Business | Infrastructural Facilities | Others | Total |
|------------------|----------------------------|---------------------------|-----------------------|------------------------|------------------------|-----------------------|---------------------------|----------------------------|--------|----------|
| Lucknow | 86 | 3 | 6 | 50 | 83 | 49 | 39 | 5 | 3 | 324 |
| | (26.54) | (0.93) | (1.85) | (15.43) | (25.62) | (15.12) | (12.04) | (1.54) | (0.93) | (100.00) |
| Kanpur | 90 | 14 | 14 | 47 | 82 | 50 | 40 | 14 | 1 | 352 |
| | (25.57) | (3.98) | (3.98) | (13.35) | (23.30) | (14.20) | (11.36) | (3.98) | (0.28) | (100.00) |
| Ghaziabad | 86 | 3 | 15 | 36 | 63 | 52 | 32 | 10 | 0 | 297 |
| | (28.96) | (1.01) | (5.05) | (12.12) | (21.21) | (17.51) | (10.77) | (3.37) | (0.00) | (100.00) |
| Total | 262 | 20 | 35 | 133 | 228 | 151 | 111 | 29 | 4 | 973 |
| | (26.93) | (2.06) | (3.60) | (13.67) | (23.43) | (15.52) | (11.41) | (2.98) | (0.41) | (100.00) |

Source: Based on Filed Data

Table 5: Responses about the Most Important Factor Motivating setting up of Enterprises by Type of Enterprises (%)

| Type of Activity | Self Motivated | Family Motivated | Husband | Friends Motivated | Govt. Officials Motivated | Others | Total |
|------------------|----------------|------------------|---------|-------------------|---------------------------|--------|----------|
| Manufacturing | 30 | 18 | 39 | 3 | 2 | 1 | 93 |
| | (32.26) | (19.35) | (41.94) | (3.23) | (2.15) | (1.08) | (100.00) |
| Trading | 90 | 65 | 72 | 27 | 2 | 2 | 258 |
| | (34.88) | (25.19) | (27.91) | (10.47) | (0.78) | (0.78) | (100.00) |
| Services | 115 | 56 | 77 | 22 | 1 | 3 | 274 |
| | (41.97) | (20.44) | (28.10) | (8.03) | (0.36) | (1.09) | (100.00) |
| Total | 235 | 139 | 188 | 52 | 5 | 6 | 625 |
| | (37.60) | (22.24) | (30.08) | (8.32) | (0.80) | (0.96) | (100.00) |

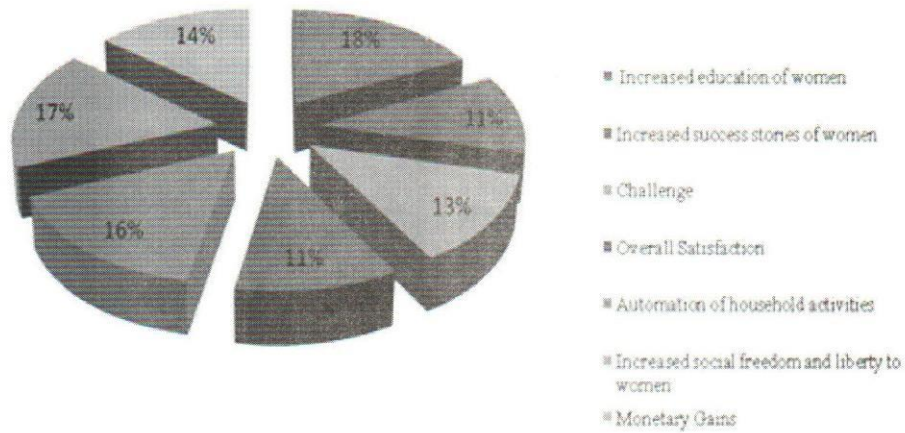
Source: Based on Filed Data

envisage the future of their business in terms of the nature and quality of work, rather than analyzing in terms of turnover and growth rates and changing social attitudes. While some entrepreneurs spoke about the role of education in enticing entrepreneurship, others spoke about increased social freedom and liberty to women. Some said they see the future to be positive as recent electronic gadgets have made household tasks easy and manageable and have helped women to diversifying into newer areas, while others elaborated on dreams of getting monetary gains and

becoming a role model through their current ventures. The vision of growth was found to vary according to both the age of the entrepreneur as well as the age of the enterprise. This clearly shows that entrepreneurs are intensely involved with the work they engage in and view future possibilities through their work as positive.

In this respect, it is relevant to look at some of the critical 'drivers' of Entrepreneurship, which reveal the positive factors that motivate entrepreneurs during their journey. Some observations are as follows:

Positive Factors Inciting Women Entrepreneurship



Increased Education of Women: Recent increases in educational levels of women have played as positive drivers for women to become an entrepreneur. Highest proportion (18 percent) of respondents claimed that education has played a positive role for them in achieving their dream goal.

Challenge: Challenge is the principal 'Motivation Driver', though not the main trigger, for Entrepreneurship. While only 10 percent of those interviewed cited 'challenge' as the main motivating factor for starting a business and 13 per cent consider the challenge in Entrepreneurship to be the main driver for the excitement and satisfaction of doing business.

Independence: Independence is important, both as a trigger and as a driver. It is a crucial trigger (as 15 per cent of those interviewed said) as well as a significant driver (17 per cent).

Money: Money is a secondary factor during the business development (14 per cent) and is considered less significant as an excitement factor than either challenge or independence.

Overall Satisfaction: Some 11 per cent of the entrepreneurs said they do not want to be in a routine job, signifying that they are satisfied with their vocation and do not regret their initial decision to become entrepreneurs.

Variations in Motivation Drivers Across Age: The fact that Entrepreneurship 'creates employment opportunities'

exerts a more significant impact as an excitement factor for female entrepreneurs and the study found that entrepreneurs above the age of 35 also feel the same compared to those below 35 years.

Change in Mindset: The study also found that there has been a gradual change in mindset towards ownership among entrepreneurs. While older businesses were traditionally run as family concerns, newer entrepreneurs are found to be inclined to decouple ownership from management. The latter are more comfortable with the idea of a professional manager, from outside the family, taking control of their business. Younger entrepreneurs, particularly in the knowledge intensive sectors, are also open to the idea of selling off a business and starting new ventures ('Serial Entrepreneurs'). Unlike older counterparts, new generation entrepreneurs are not averse to selling off (or handing over the day-to-day management of) their business, once it becomes mature. As a result, there are instances of entrepreneurs in their 30s who are already on their third or fourth venture, after having established *successful* businesses earlier.

d. Extent of Experience Before Venturing into Business

The study also found that there was a strong correlation between previous work experience and '*business idea origin*', thereby impacting the nature of enterprise chosen by our respondents. Among those who had work experience, 20 percent started enterprises in fields related

to those in which they had previously worked (as distinct from merely replicating the business idea of their former employers). Thus, the study found instances of a person employed in a beauty parlour starting her own beauty parlour, a person with experience in tailoring launching her own boutique, and so on. While working as employees, these entrepreneurs identified market gaps and designed innovative products or services, which enabled them to become entrepreneurs.

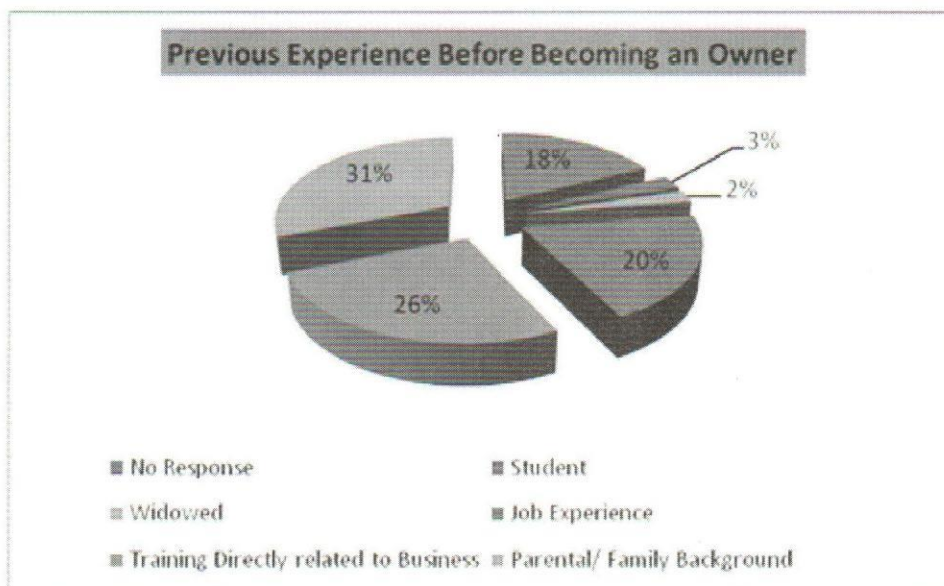
The figure shows that most of the women entrepreneurs had emulated their family background (31 per cent) before getting involved in their own business.

Among the rest of the respondents, 26 per cent had training directly related to the business they had opted, 20 per cent had previous job experience and were employed by others and 18 per cent gave no response in this query. Training to develop good entrepreneurial skills is useful and essential to women (Padmavati, 2002; Sathyasundaram, 2004). The Government should also provide them with financial, marketing and training assistance so that women can start-up their business. Thus, in order to bring upliftment in the quality and work skill of the women entrepreneurs they should be given proper training and support. Hence in our survey too we found that 26 per cent respondents utilized their previous

Table 6: Experience before Becoming a Business Owner

| District | No Response | Job Experience | Training Directly related to Business | Parental/ Family Background | Total |
|------------------|-------------|----------------|---------------------------------------|-----------------------------|----------|
| Lucknow | 20 | 27 | 26 | 25 | 98 |
| | (20.41) | (27.55) | (26.53) | (25.51) | (100.00) |
| Kanpur | 14 | 22 | 36 | 23 | 95 |
| | (14.74) | (23.16) | (37.89) | (24.21) | (100.00) |
| Ghaziabad | 21 | 11 | 17 | 45 | 94 |
| | (22.34) | (11.70) | (18.09) | (47.87) | (100.00) |
| Total | 55 | 60 | 79 | 93 | 287 |
| | (19.16) | (20.91) | (27.53) | (32.40) | (100.00) |

Source: Based on Filed Data



training skills to pursue their dream project.

e. Social barriers faced in starting an enterprise

When entrepreneurs were asked: ‘What were the problems you faced in starting an enterprise?’, it was discovered that most entrepreneurs kept silent on this issue. While some entrepreneurs spoke about neglect of children being one of the main barriers in starting their venture, others spoke about neglect of family and long working hours required in starting an enterprise. Some said they see the future in terms of diversifying into newer areas, while

others elaborated on dreams of building their current ventures into world-class enterprises. The vision of growth was found to vary according to both the age of the entrepreneur as well as the age of the enterprise.

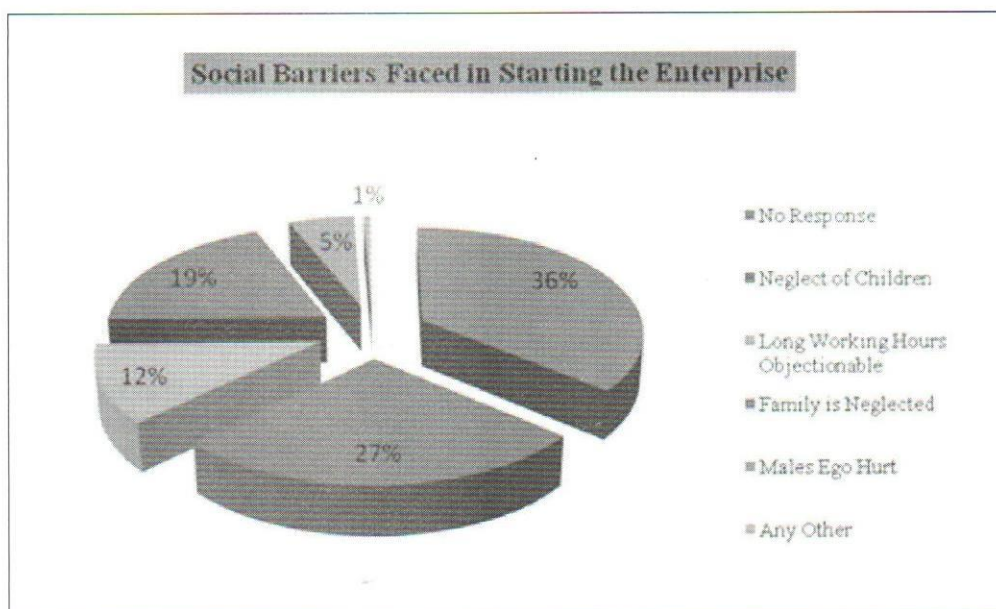
f. Social Barriers Faced in Running the Enterprise

It is evident from the analysis that participation of women in formal economy has not freed them from traditional roles and responsibilities in family life rather it creates double workload for them. Among 300 women entrepreneurs, 53

Table 7: Social Barriers Faced by Respondents while Starting their Business

| District | No Response | Neglect of Children | Long Working Hours Objectionable | Family is Neglected | Males Ego Hurt | Any Other | Total |
|------------------|-------------|---------------------|----------------------------------|---------------------|----------------|-----------|----------|
| Lucknow | 37 | 23 | 14 | 23 | 5 | 1 | 103 |
| | (35.92) | (22.33) | (13.59) | (22.33) | (4.85) | (0.97) | (100.00) |
| Kanpur | 36 | 32 | 13 | 29 | 6 | 1 | 117 |
| | (30.77) | (27.35) | (11.11) | (24.79) | (5.13) | (0.85) | (100.00) |
| Ghaziabad | 40 | 29 | 10 | 8 | 6 | 0 | 93 |
| | (43.01) | (31.18) | (10.75) | (8.60) | (6.45) | (0.00) | (100.00) |
| Total | 113 | 84 | 37 | 60 | 17 | 2 | 313 |
| | (36.10) | (26.84) | (11.82) | (19.17) | (5.43) | (0.64) | (100.00) |

Source: Based on Filed Data



per cent played silent role while commenting about their social constraints faced in running their enterprises. At the same time, 16 per cent still felt that their children were being neglected and a similar proportion mentioned that their family is neglected as they had to take main responsibilities in their family life. Only 3.1 per cent of the respondents mentioned that the males ego gets hurt when a women runs an enterprise.

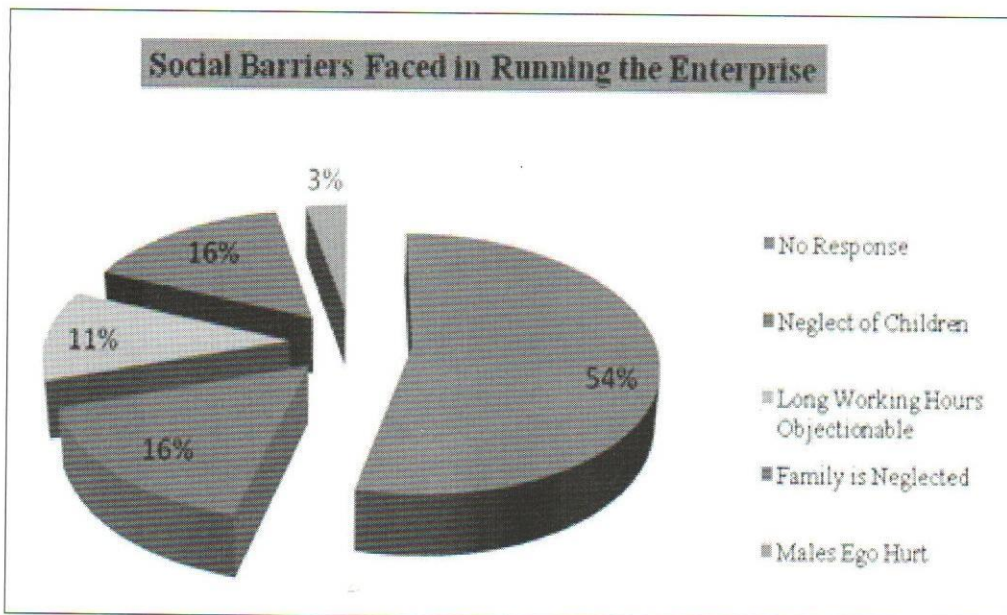
4. Conclusion

To conclude we find that female entrepreneurship does not unsettle men in quite the same way as a woman working in a formal sector job often does, which could be a reason for the success story. The fact that remains is that there is no designation, no rank that can serve as a relative measure of success and no fixed salary that

Table 8: Social Barriers Faced by Respondents

| District | No Response | Neglect of Children | Long Working Hours Objectionable | Family is Neglected | Males Ego Hurt | Total |
|------------------|-------------|---------------------|----------------------------------|---------------------|----------------|----------|
| Lucknow | 41 | 15 | 10 | 18 | 4 | 88 |
| | (46.59) | (17.05) | (11.36) | (20.45) | (4.55) | (100.00) |
| Kanpur | 46 | 18 | 11 | 14 | 1 | 90 |
| | (51.11) | (20.00) | (12.22) | (15.56) | (1.11) | (100.00) |
| Ghaziabad | 50 | 8 | 8 | 8 | 3 | 77 |
| | (64.94) | (10.39) | (10.39) | (10.39) | (3.90) | (100.00) |
| Total | 137 | 41 | 29 | 40 | 8 | 255 |
| | (53.73) | (16.08) | (11.37) | (15.69) | (3.14) | (100.00) |

Source: Based on Filed Data



becomes a benchmark to compete against, and that this turns out to be advantageous issue for women (Desai, 2018). This is why a lot of entrepreneurial activity is conducted in the name of 'doing something on the side' or by way of 'keeping busy'. Interestingly, this characterization comes from a pragmatic understanding of the need to downplay ambition and even success, so as to not threaten the existing power hierarchy with the men around her. Even in instances where the woman was making more money than her husband, one often saw a low-key description of her work. Of course, this is not always the case; there are examples of women doing really well and men learning to live with it. In these cases, traditional roles are overturned and a new power dynamic is established, but this happens infrequently. Female entrepreneurship is a form of untethering, a release of desires and aspirations that render the idea of boundaries a little less relevant. The change may as yet be small, but it is unmistakable; the ability to lead life on one's own terms and to create something of enduring value is a profoundly significant shift that we are seeing today (Desai, 2018).

There is no common set of traits, psychological attitudes or profiles that apply to all entrepreneurs alike or to which all entrepreneurs generally conform.

Significant motivating factors are: 'Independence' (stemming from the freedom to do 'one's own thing'), 'Market Opportunity', 'Family Background', a 'New Idea' (with business potential), the prospect of 'Challenge', as well as a long cherished 'Dream Desire' to become an entrepreneur. Internal triggers are the primary motivators, while external factors such as market opportunity are also growing in importance. There are variations in motivational triggers on parameters such as region, gender, age, family background, time period and levels of work experience. 'Challenge' is the principal motivation driver or positive factor, even if not the most important trigger. Entrepreneurs view the future in terms of the nature and quality of work as well as turnover increase. By their very nature, entrepreneurs tend to be ambitious. Monetary gain is not as significant as either challenge or independence. There are also variations in the excitement factors based on gender and age. Almost all entrepreneurs do not want to be in a routine job and are generally satisfied with their experience in entrepreneurship. An emerging trend is to welcome professional management of their enterprises and seek new opportunities, which is described as 'serial entrepreneurship'. This is particularly evident amongst entrepreneurs in the knowledge-intensive sectors.

Notes

- ¹ Mario Rutten, 'Farms and Factories: Social Profiles of Large Farmers and Rural Industrialists in Western India', page 23; see also paras 1.1 and 1.2; read with relevant footnotes in Chapter 1.
- ² See, for example, 'Entrepreneurial Management: In Pursuit of Opportunity', *The Intellectual Venture Capitalist: John H. McArthur and the work of the Harvard Business School, 1980-1995* (Ed. Thomas K. McCraw and Jeffrey L. Cruikshank. Harvard Business School Press, 1999) who discusses various studies; to quote, 'Although this individually and psychologically oriented research has pointed to some interesting correlations, unfortunate consequences too easily result from such a focus. It implicitly suggests that, if one could only discern the psychological profile of an entrepreneur and then hold an individual up against that profile, one could predict whether that individual has the potential to become an entrepreneur, or is one already. Yet none of the proposed "profiles" applies to all entrepreneurs, and many entrepreneurs refuse to conform to any of these profiles.'
- ³ Attributed to David McClelland, see Mario Rutten, *supra* note 16 as above, at page 23; See also, R Gopalakrishnan, 'Prosperity Beyond Our Cities by Spreading Enterprise', AD Shroff Memorial Lecture, October 17, 2007; see generally, David Kirby, *supra* note 1 as above.
- ⁴ Attributed to the sociologist Max Weber, see Mario Rutten, *supra* note 16 as above at page 23.
- ⁵ Peter Marris, 'The Social Barriers of African Entrepreneurship', *Journal of Developing Societies* (October, 1968), as quoted in Thomas A. Timberg, 'The Marwaris: From Traders to Industrialists', 1978, page 19; see also, the GEM studies on Entrepreneurship that distinguish between 'need based' and 'opportunity based' Entrepreneurship.
- ⁶ Mario Rutten, *supra* note 16 as above at page 24.
- ⁷ See the work of Saras D Sarasvathy generally on the 'affordable loss principle', at the University of Virginia, Darden School Foundation.

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"If you can't admit a failure, you're not an entrepreneur. You are not a good business person. There's nothing brilliant about what you are doing."

– Mark Cuban

Strategies towards Sustainability of Business Schools in India

MOHIT KUMAR KOLA

In the present paper attention has been focused on the majority of Business Schools in India towards the extent of fulfilment of the goals and thus their capacity towards sustainability. A review on this aspect shows a rather dismal performance on the part of majority of B-schools. To turn the table for these B-schools towards the path of sustainability, ten strategies are outlined here in this paper. These strategies are: i) re-orient MBA curriculum, ii) ensure adherence to multi-attribute admission criteria, iii) recruit quality faculty, iv) use of relevant teaching materials, v) test and re-test teaching-learning pedagogy, vi) encourage competition amongst students, vii) enhance interaction with local organizations, viii) institutionalize mechanism of direct quality assurance of teaching and learning, ix) promote entrepreneurship culture within the B-school, and x) focus on research. The paper analyzes the impact of the above ten strategies on various input and output parameters of learning and development using the system dynamic concept of feedback loop.

Introduction

India is now the world's fastest growing economy. The IMF (2017) forecasts growth rate of 7.4% for India in 2018 as against China's 6.8% and global economic growth rate of 3.1%. Forbes (Babones, 2018) might have rightly alerts (Jan 2, 2018) that India must invest in next-generation value chains to succeed in the growth process. To maintain its race for top global economic position, India needs more and more competent managers who would become prime movers of the growth process in a complex and rapidly changing environment. The government of India took several steps in this direction. Setting up of six more Indian Institute of Management (IIM) has been approved, taking the number of country's top tier business schools (B-school) to nineteen (India Today, 2015). Very recently, government of India has passed a new IIM Bill (ndtv.com, 2017) granting autonomy to IIMs, and empowering them to award degrees to their students (instead of diplomas). Along with top tier business schools, many new B-schools have come up under the umbrella of different existing and newly setup universities as approved by the University Grants Commission. Simultaneously, to meet the growing demand for competent managers, many private B-schools have come up across the whole country to fulfill the needs of leadership and decision making skills as required by India's growth process.

If we look at the outcomes of B-schools, we find that the Special Report of Forbes (Jan 11, 2018) pointed out that management education in India finds itself at a crossroads today. Apart from a few IIMs, and reputed management institutes, most B-schools have begun churning out graduates who are far from being job-ready. To cater to the aspirations of millions of Indians for MBA studies, the rapid of mushrooming of tier-2 and tier-3 B-schools have come up with manifold increase in the

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number of seats. In 2015-16, these schools offered a total of 5,20,000 seats in MBA courses, compared to 3,60,000 in 2011-12. The Associated Chambers of Commerce and Industry of India based on its study (Assocham Report, 2016) reports that "Amidst the tens of thousands of management graduates churned out by the 5500 B-schools in the country, only 7 per cent turn out to be employable".

If we analyze the situation critically, it may be observed that majority of B-schools are driven by commercial goals rather than education. Every management institute determines autonomously its admission process with no clear standard of evaluation, outdated curriculum is followed with inadequate institutional resource base and in-experienced faculty with no measurement and control of learning outcomes as demanded by the job market. Poor education quality coupled with global economic slowdown from 2014 to 2016, campus recruitments have gone down by a whopping 45 per cent, the Assocham reported. Now, job offers are further dying in India on account of recent factors like demonetization, introduction of GST in the absence of an appropriate system support, lack-lustre business environment, and stalling of many new projects. Assocham in its report of December 11, 2017 highlighted that only 20% of students from B-schools land job offers. Its Education Council in its report confirms that more than 250 B-schools have already been shut down in top cities such as Delhi, Bangalore, Mumbai, Kolkata, Lucknow, etc. Another 99 B-schools are struggling for survival. All India Council for Technical Education (AICTE), the apex body of technical and management institutes have also confirmed that 101 management institutes have written to them seeking voluntary closure, and some other institutes have applied for closure of their management courses leading to extinguishment of another 11,000 management seats. When MBA graduates spend nearly Rs. 3-5 lakh on a two-year MBA program, their current monthly salary at times is hardly Rs. 8000 to Rs. 10000 per month, that too, only when they are placed. That's the scenario in majority of B-schools in India that have mushroomed during the recent past as observed by Assocham. The CRISIL (Credit Rating Information Services of India Limited) Research Report (2014) says, the country's MBA dream is fading fast as there is more awareness about lack of quality, infrastructure, and decreasing return on investment. In such an environment question arises what needs to be done to improve the quality of management education in B-schools in India?

Recent efforts made to plan and control B-school outcomes:

Hindustan Times (August 6, 2018) in its article: "This is what is wrong with MBA programs in India, and here is how to fix it" suggested various measures to overcome the shortcomings of MBA program. Some of these include: curriculum should be designed to meet the needs of not only MNCs, but also of SMEs; faculty needs to be entrepreneurs and industry leaders who can share their experiences in the MBA classroom. MBA programs aim to train and build entrepreneurs to steer the Indian economy to great heights instead of producing job seekers in the institute's campus placements. AICTE to revamp, and reorient the management curriculum, and face the challenge of quality assurance of Indian B-schools and hence has come up with a model curriculum taking Volatility, Uncertainty, Complexity, and Ambiguity (VUCA) as the crutch, advocated by Bennett and Lemoine (2014). In an effort to improve the quality of education in the country, the National Institutional Ranking Framework (NIRF) has been evolved in nine different categories including B-schools. It has developed 5-point criteria to rank the institutes as under:

1. Teaching and learning resources (TLR) that includes parameters like i) student strength, ii) faculty student ratio, iii) faculty with PhD and experience, iv) total budget and its utilization.
2. Graduation outcomes (GO) that includes parameters like i) percent of students placed, opting for higher education, and entrepreneurs, ii) university examinations, iii) median salary, iv) students admitted into top universities, no. of PhD students graduated.
3. Research and professional practice (RPP) that includes parameters like i) publications quality of publications, ii) IPR and patents filed, published, granted, licensed, iii) projects and professional practice, executive development programs.
4. Perception (PR) that includes parameters like i) peer perception, employees, research investors, ii) peer perception, academics, iii) public perception, iv) competitiveness.
5. Outreach and inclusivity (OI) that includes parameters like i) students' regional diversity, ii) percent of women amongst students, iii) no. of economically and socially challenged students, iv) facilities for physically challenged students.

A total of 487 B-schools of India participated in the NIRF ranking (2018) with relative weightings to TLR: GO: RPP: PR: OI as 0.10: 0.10: 0.40: 0.05: 0.35 respectively.

12 out of 20 IIMs appear amongst the top 50 B-schools with IIM, Ahmedabad being at the highest position with overall score of 79.18 as shown in Table 1 below.

Table 1: Highest scores in each of 5-criteria, and overall

| Criteria | Highest score | Highest scorer | Score of IIM, Ahmedabad |
|--|---------------|---------------------------|-------------------------|
| Teaching and learning resources (TLR) | 90.82 | IIM, Ahmedabad | 90.82 |
| Graduation outcomes (GO) | 97.95 | IIM, Bangalore | 97.25 |
| Research and professional practice (RPP) | 80.25 | IIT, Delhi | 53.89 |
| Perception (PR) | 100.00 | IIM, Bangalore | 99.87 |
| Outreach and inclusivity (OI) | 75.75 | Lovely Professional Univ. | 63.26 |
| Overall | | | 79.18 |

On analyzing the relative scores in each of the five criteria of the top 50 B-schools participated in the NIRF ranking of 2018, the correlation matrix amongst each of

the 5-criteria and overall score has been worked out as shown in Table 2 below.

Table 2: Correlation Matrix amongst score of each criteria of top 50 B-schools

| | TLR | GO | RPP | FR | OI | Overall |
|---------|------|-------|-------|-------|-------|---------|
| TLR | 1.00 | 60.04 | -4.87 | 54.78 | 29.51 | 59.86 |
| GO | | 1.00 | -1.39 | 45.95 | 3.59 | 55.16 |
| RPP | | | 1.00 | 39.73 | 13.26 | 71.39 |
| FR | | | | 1.00 | 8.39 | 80.20 |
| OI | | | | | 1.00 | 12.46 |
| Overall | | | | | | 1.00 |

The NIRF considers five criteria, but are they really independent? In reality, teaching and learning resources (TLR) will no doubt depend on research and professional practice (RPP) of the faculty. Again, the graduation outcome (GO) will be dependent on teaching and learning resources (TLR) as well as research and professional practice (RPP). The perception (PR) will be dependent on all criteria like graduation outcome, availability of teaching and learning resources as well as the strength of faculty in terms of research and professional practice. The outreach and inclusivity (OI) being a social objective is more of a constraint which has bearing on all criteria like the teaching and learning

resources, research and professional practice as well as graduation outcome which in turn will have a bearing on the development and maintenance of institute's perception. Conceptually therefore, there may be a causal relationship amongst the five criteria considered as the basis of the ranking framework. The correlation matrix reflects more of such a causal relationship amongst the five set of criteria, and their respective contribution building up the overall correlation result. However, the negative correlation results between research and professional practice (RPP) of faculty and teaching and learning resources (TLR) available and graduation outcome (GO) poses a question mark. Does it

mean research and professional practice active faculty instead of contributing to teaching and learning resources and graduation outcome are neglecting the focus on teaching and learning of students in favor of faculty's personal goals, thereby causing a negative relationship? What is important is to try to assess the relationship amongst the primary variables like teaching and learning resources and research and professional practice of faculty with graduation outcomes as the intervening variable, which will cause the resultant end result variable like the perception and reputation of the institutes along with the modulating impact of outreach and inclusivity achievements.

But that's the performance monitoring of 487 B-schools who all participated in the NIRF exercise during the current year out of a total 5500 B-schools in India, which is less than even 10% of total B-schools in the country. If we look at world ranking of B-schools, our top B-schools are nowhere in the Forbes Ranking where Wharton, Stanford, Harvard, and North Western etc. dominate. If we talk of The Association of Advance Collegiate Schools of Business (AACSB) accreditation, only 6 of our B-schools are so far could make into that list, viz., i) IIM, Calcutta; ii) ISB; iii) IMT, Ghaziabad; iv) T A Pai Management Institute; v) XLRI, Jamshedpur; vi) IFIM Business School, Karnataka.

To turn the corner for the majority of B-schools of India, instead of monitoring their final outcomes, and ranking them, what we need is to examine the various problems they face. Then only, we would be in a position to think of appropriate strategies to overcome their problems and maximize the desired outcomes.

Problems with B-schools in India analyzed:

B-schools have indeed a noble objective of creating the business leaders, and entrepreneurs for the country to facilitate its economic growth process. But in the absence of any appropriate mechanism to ensure oversight of teaching and learning outcomes, educational quality and academic integrity take the back seat here in India, barring aside only a few management institutes. Only a few B-schools are accredited by National Assessment and Accreditation Council, and by now only six B-schools in India are accredited by AACSB international as stated earlier. Promoters spend on advertisement to boost the registration uptick for return on investment, whereas students generally focus on placement and salary statistics rather than the desire to acquire knowledge, develop

leadership skills, and enhance decision making skills. The quality of faculty is a big question mark as hardly do they have practical industrial experience, and business perspective for teaching business administration courses needed by the employers. Majority teachers are overburdened with instructional loads at lower salary, coupled with lack of research focus. Courses are predominantly theoretical with very low priority on managerial skill development. Hardly the syllabus is updated with evolving needs of the market economy, commerce and industry. Textbooks and cases are mostly not relevant to local context. Traditional teacher-centric teaching pedagogy is mostly followed in a class size of 70-80 plus with hardly any scope of ownership of learning, and confidence building of students.

India is the largest provider of management education, however, the scale belies these problems (The Economist, 26-01-2016). All India Management Association calls abysmally low, disconnect between educational and employer requirements. The true value of an MBA degree is getting undermined as it increasingly becomes an entry level qualification. The problems with majority of B-schools in India are classified under four categories: i) Program related, ii) Faculty related, iii) Students related, and iv) Administration related as presented in Figure 1.

Strategies to enhance competitive edge B-schools:

To take care of various problems as analyzed above, the author based on his four decades of involvement as MBA teacher and administrator suggest possible strategies in ten dominant areas here in this paper as below to enhance the competitive edge of B-schools towards their sustainability, and enable them to continue to play an effective role towards supplying effective leaders to facilitate the economic growth process of India.

1. Re-orient MBA curriculum;
2. Ensure adherence to multi-attribute admission criteria;
3. Recruit quality faculty;
4. Use of relevant teaching materials;
5. Test and re-test the teaching-learning pedagogy;
6. Encourage competition amongst students;
7. Enhance interaction with local organizations;
8. Institutionalize mechanism of direct quality assurance of teaching and learning;

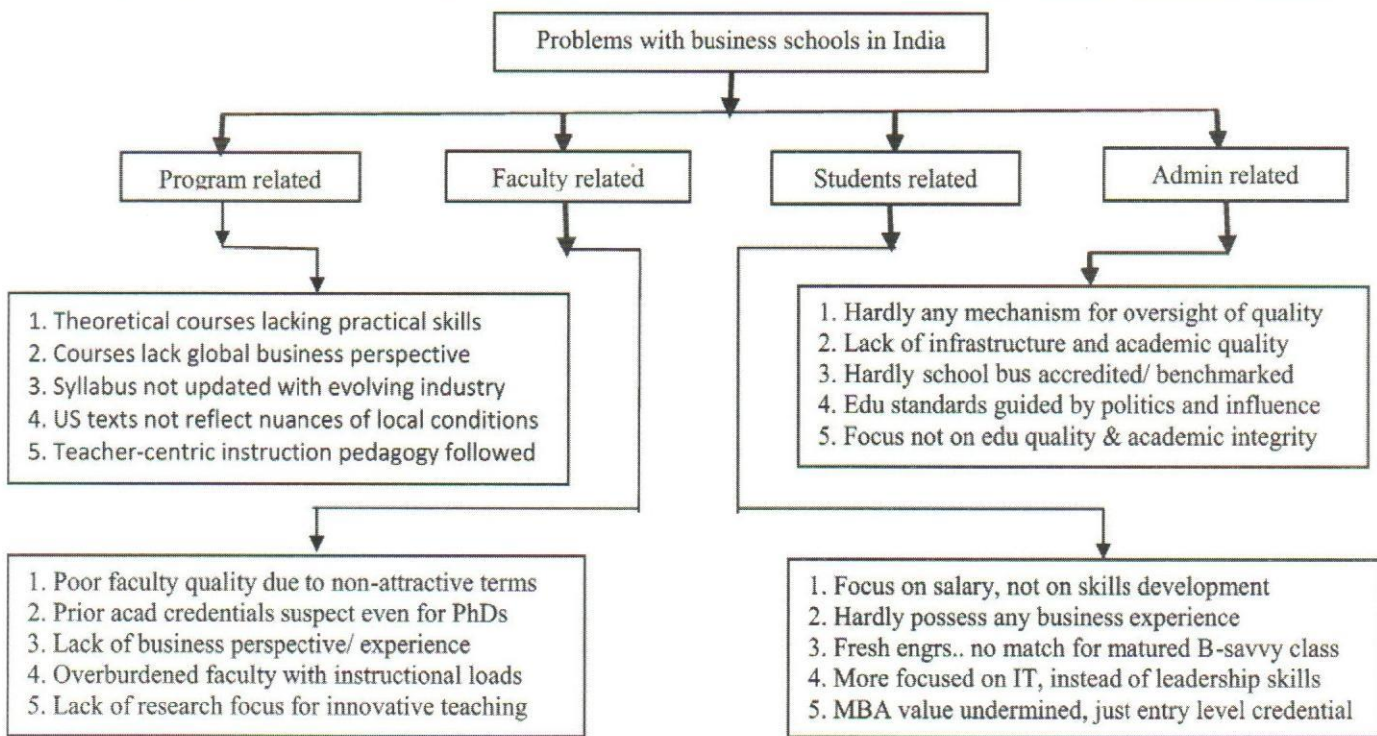


Figure 1: Problems with B-schools in India classified

9. Promote entrepreneurship culture within the B-school; and
10. Focus on research

Re-orient MBA curriculum:

In the first and foremost, what is important in business curriculum is the need for embedding practice with theory, building academic rigor within the contents of pragmatic professional practices, so that business managers gradually conjoin the science with the art of decisions and actions. Combining theory with practice will help the MBA graduates not only help to become more effective professional business managers facilitating growth in their careers, they will be able to equip themselves to take up professional certification examinations along with their MBA degrees. MBAs with specialization in finance and accounts, for example, may also aspire to become sooner or later certified financial analysts or cost and management accountants or an MBA with specialization in operations may aspire to become a certified supply chain professional or a member of ISO. What is important for B-schools is to work in tandem with professional bodies to examine their syllabus and try to incorporate whatever is feasible to include practice component along

with academic rigor of management theories in their MBA courses. Secondly, holistic perception is indeed essential to analyze any business situation. That calls for encouraging the faculty to design and offer courses in multi-disciplinary areas, for example, like accounting applied to human resource management, or operations and supply chain management or marketing management etc., besides sectoral applications of the core areas. That will indeed facilitate students to develop a total perspective of the real live business scenarios. Thirdly, a few graduates may aspire to join multi-nationals, and need to go in depth for developing a global perspective, but our country also needs managers for growing SME sector. Therefore, the MBA syllabus should offer courses tailor-made for each of the two sectors for MNCs and SMEs, offering flexibility in its curricula to meet the varying needs of the MBA student population. The impact of these three strategies of i) embedding professional examination syllabus, ii) choice of multi-disciplinary courses, and iii) choice of multi-national versus SME focused courses have been reflected on the graduate quality with positive feedback loop in the Figure 2. The impact of the graduate quality on the competitive edge of the B-schools via the economic growth link is shown on the student intake quality that is likely to encourage reorienting MBA

curriculum still further in the positive feedback loop as shown in the Figure 2.

Ensure adherence to multi-attribute admission criteria:

For nurturing successful business managers out of MBA program, the admission process of any B-school needs to evaluate in a formal way the potentials of aspiring candidates, their abilities and motivation to become future business managers. Performance in Common Admission Test (CAT) as conducted by IIMs may be fine for assessing scholastic ability just like the score in the Graduate Management Admission Test (GMAT) for admission into MBA programs in the global market. But the question arises about other qualities that are needed to become successful business managers. IIMs and certain other management institutes do conduct group discussions and personal interviews to assess those attributes of candidates for admission. But those quality parameters

are really to be measured, and compared against the set standard for accepting or rejecting candidates and not left to the whims and fancies of the admission committee members or the head of the Institute for the uptick in the desired number for specific management streams. In fact, to become successful business managers, it is suggested here that we need to assess a minimum of six quality attributes of MBA candidates. These are: i) scholastic ability, ii) industrial experience, iii) business perspective, iv) group working skill, v) managerial skill, and vi) entrepreneurial ability. The admission process must decide in advance the method of measuring each criteria, and the minimum cut off score for each of the six criteria. Such a proposed selection criteria will no doubt have a positive impact on the graduate quality (Figure-3) with consequent favorable effect on the competitive edge of B-schools which is likely to improve the student intake quality encouraging still further the adoption of multi-attribute MBA admission criteria by the B-schools.

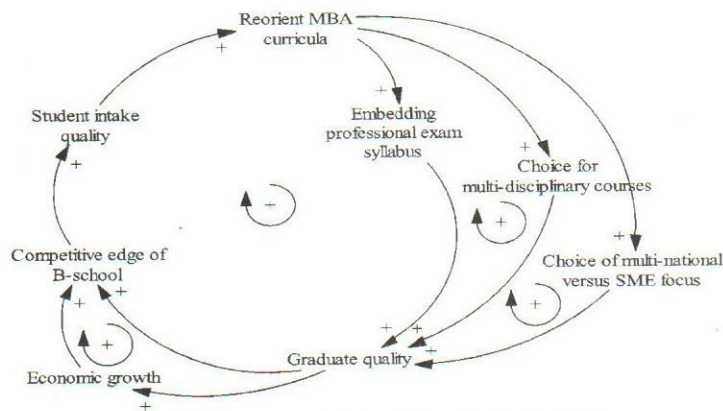


Figure 2: Re-orient MBA curriculum

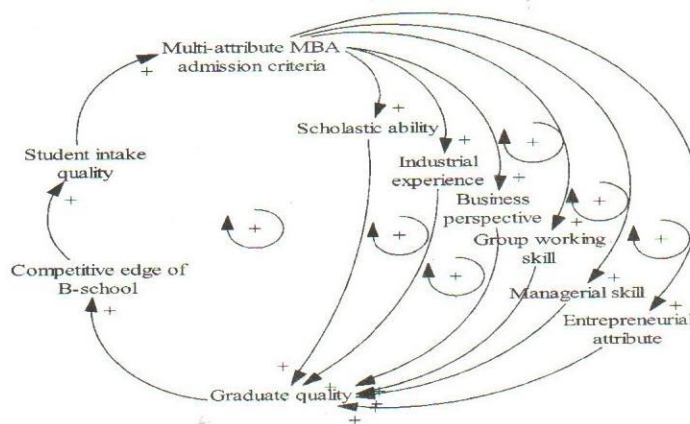


Figure 3: Multi-attribute MBA admission criteria

Recruit quality faculty:

The quality of faculty is of paramount importance along with their sincere efforts to nurture and develop the MBA future leaders of the country. Besides academic credentials, the incoming faculty members of MBA program must have prior teaching and research experience in the areas of business administration. Along with their teaching and research experience, the faculty members need to have industrial experience too from the field so that they can share their business experiences in the MBA classroom. Teaching decision models are no doubt needed, but discussions on pragmatic real live solutions from business scenarios are indeed important for developing the future business managers. Of course, to attract the best quality faculty and sustain their motivation, offer of fair salary is the basic prerequisite. It is indeed imperative that the level of faculty quality is the prime resource of B-schools that directly determines the quality level of

teaching and learning outcomes that in turn governs the graduate quality and the competitive edge in the market place.

As the student intake quality improves with their competitive edge, the teachers are likely to take still more interest in teaching and development of comparatively better students thus enabling the faculty to enrich the teaching and learning outcomes in the positive feedback loop (Figure-4). The likely appreciating track of the competitive edge of B-schools enables them to attract still higher number of students even with increased tuition fees thus putting the B-school income on the up-track which will encourage them to put still more focus on the quality faculty recruit in the positive feedback loop. In fact, the faculty quality as the prime mover decides their fate, whether to sustain in the midst of competition or shut their shop in no time, if they decide to compromise on the quality of faculty.

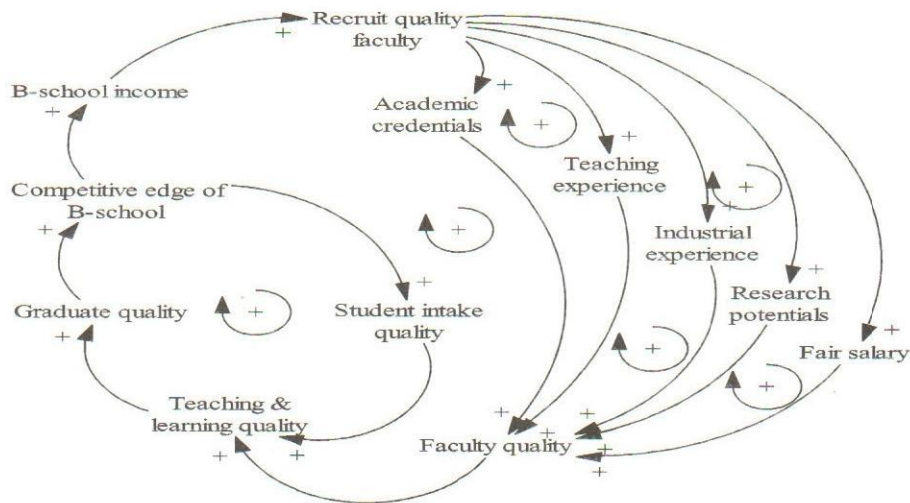


Figure 4: Recruit quality faculty

Use of relevant teaching materials:

Teachers' existing knowledge, notes and power points may not be enough to make any MBA program really successful. First and foremost, most revised and relevant textbooks must be followed in the MBA classroom for building up the core knowledge base in each of the MBA courses that will enable the students to keep up their reading habits, and self-learning. In addition to textbooks, it is indeed imperative that the teachers themselves must continue to update with the latest developments both in the academic as well as business practices, and select

the relevant additional reading materials for students in the subject from each of the two worlds of theory and practice. Business teaching and learning is the gathering, absorbing, and deriving lessons from everyday happenings and changes in the fields of government policies, rules and regulations; strategies adopted by different sectors in business and industry, and the results of such decisions on them, the country and the society as a whole.

Keeping track of such news, online data, happenings of everyday is a must for both the teachers, and the MBA

students. In fact, presentation and discussion of most relevant happenings in the business scenario relevant to the course could possibly be the starting point of everyday MBA class for each course. Threadbare analysis of both local and global cases and deriving lessons from those is another important dimension for any business course teaching and learning. Use of management games, and application softwares would really help MBA students to develop decision making skills in the midst of complexities, ambiguities, and uncertainties which are absolutely essential for the success of business managers in the real world.

Of course, the teaching materials alone will not suffice for the teaching and learning quality, both the quality of student intake and faculty quality are fundamental to assure its quality. The quality of teaching and learning outcomes will govern the graduate quality that in turn will determine the competitive edge of B-schools. The competitive edge will no doubt help to attract the best of faculty quality as well as the student intake quality with their positive impact on quality. However, the strength of the faculty being prime, their sincere efforts and sustained motivation would only encourage to use the most relevant teaching materials in the positive feedback loop as presented in the Figure 5.

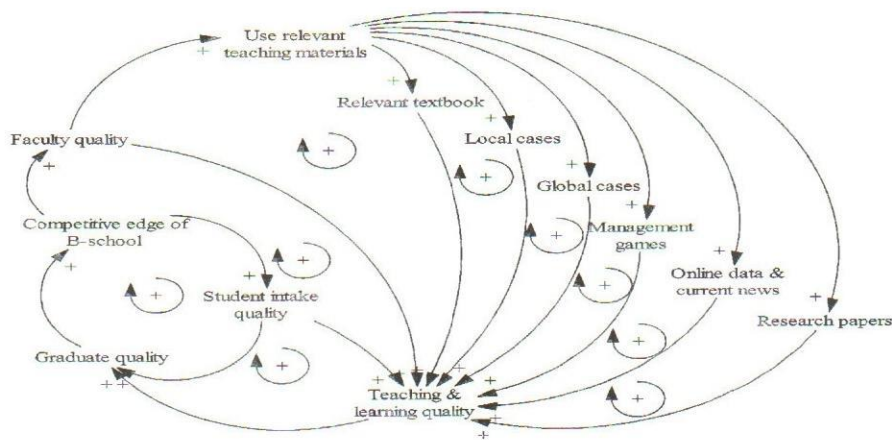


Figure 5: Use of relevant teaching materials

Test and re-test the teaching-learning pedagogy:

The teaching method will depend upon the nature of the specific course, the preference and prerogative of the teacher as well as in tune with the background and aspirations of the participants in the classroom. This needs to be really reengineered by the faculty based on the portfolio of teaching materials of the course to best suit the students' profile. It will indeed vary with the teachers, and their quality to adopt the best possible way of delivering the courses. They need to continuously monitor the level of participation of students in the class and how inquisitive and active they are to learn inside and outside the class, and perform in the quizzes, tests, discussions, and presentations.

The teaching methods will no doubt be a combination of lecturing, idea germination, group discussion, problem solving, case discussions and presentation, modelling, and simulation, etc., not one-way traffic, two-way discussions and assimilation of ideas, theories, and

practices. The success of teaching pedagogy adopted by any teacher will depend upon to what extent students in his or her class start believing in the ownership of their learning, and development. The students need to gradually take real interest in their learning, and engage themselves to gradually learn on their own with the teacher as just the facilitator. The design of the best pedagogy will not come at a stroke in a day but needs to test and re-test what is the best way of teaching and learning for the best possible development of students with the particular student group in question, and the nature of the course. Then only, majority of students will start taking ownership of learning in their own hands, and will become still more inquisitive to learn and develop still more. This ownership of learning as the success outcome of most appropriate teaching pedagogy will be the real asset in the hands of students to steer themselves on the appreciating track of graduate quality as reflected in the Figure 6. The graduate quality will in turn enhance the competitive edge of B-schools with consequent impact on student intake quality which

will further reinforce the ownership of learning amongst the students in the positive feedback loop as in the Figure-6. The competitive edge of B-schools will in turn govern the quality of their faculty who are the real custodians of adopting the art and science of test and

re-test of the teaching pedagogy leading to the best possible development of students' ownership of learning enabling them to continue to learn and develop throughout their life.

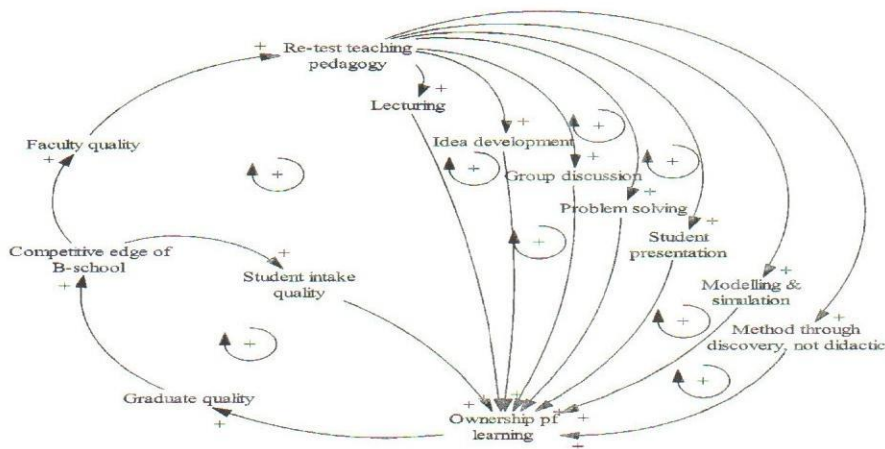


Figure 6: Test and re-test teaching-learning pedagogy

Encourage competition amongst students:

We all know that competition leads to excellence in performance. All B-schools need to be proactive in germinating the seeds of competition amongst students and design and institute various academic awards and recognition for them. The awards to students will no doubt enhance the level of motivation in their studies, and learning and development, which will in turn improve the graduate quality in the positive feedback loop as shown in the Figure-7. As the students are encouraged to compete amongst themselves for academic excellence, faculty members are also likely to be extra energized to help the students to excel still further thus improving the graduate quality.

Encouraging competition in all probability is likely to enhance the competitive spirit amongst the MBA graduates as the future business managers in the country. Such a national level attribute of students' community will indeed facilitate country's economic growth and development. The graduate quality outcome, and the role played by them in the country's economic growth will have favorable consequences on the competitive edge of B-schools which is likely to improve the student intake quality because of name and fame of their B-schools. The improved student intake quality will again reinforce the positive feedback loop of competition amongst students as shown in the Figure 7.

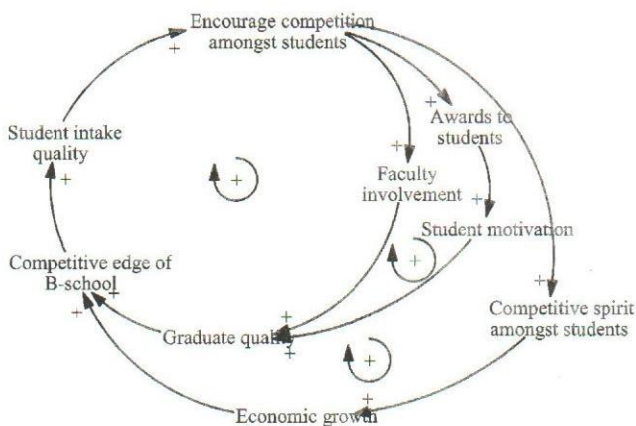


Figure 7: Encourage competition amongst students

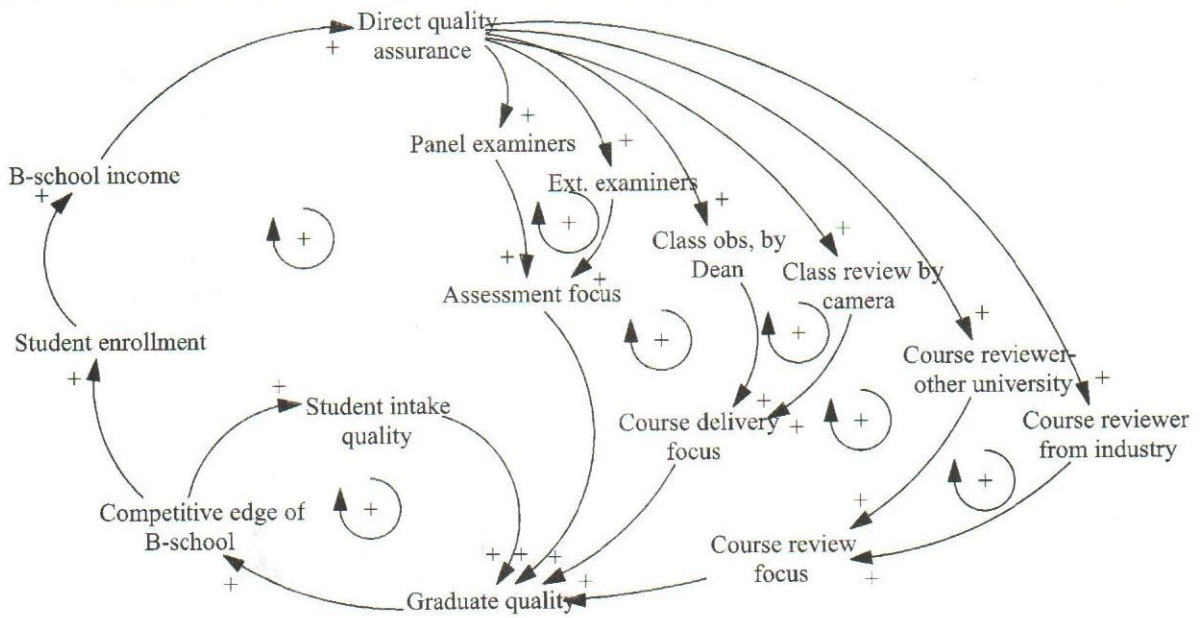


Figure 9: Direct quality assurance of teaching and learning

teaching, research and external activities. In addition to industry experienced faculty, focus needs to be on entrepreneurial teaching, from summative to formative assessment, structured to unstructured discussions, quantitative to qualitative base for decision making, teacher-led to student-led learning and development (Wall and Ottell, 2000). This will help build the confidence level of students as the learning outcome. The focus on SMEs and entrepreneurship courses, the stories of success and failure of entrepreneurs in different fields and the students' confidence level lead to the germination of

entrepreneurial graduates. The number of entrepreneurs that are coming out of B-schools is not the goal, entrepreneurial spirit is the most important, how business managers plan and control the risk-return portfolio of corporate houses, believing as if they are custodians of their own organizations. The outcome of entrepreneurial graduates will differentiate the MBA graduates from the run of the mill in the competitive market, not only direct but also through the role they play in the country's economic growth. The competitive edge of B-school will have its positive feedback effect on both the choice of

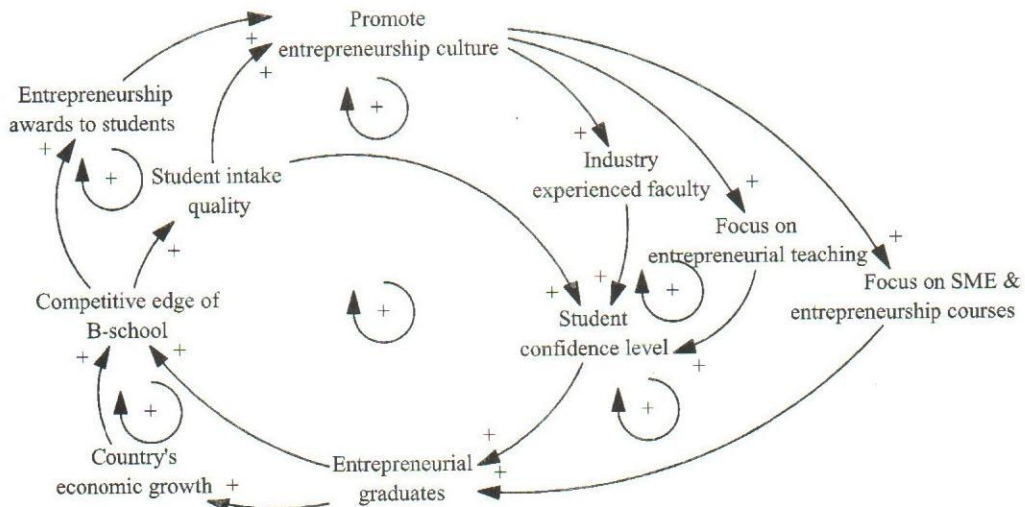


Figure 10: Promote entrepreneurship culture within the B-school

student intake quality with still more weightings on entrepreneurial qualities while admitting students as well as more and more entrepreneurship awards to students. These two strategies will in turn promote entrepreneurship culture within the B-school still further with the positive feedback effect as shown in the Figure 10.

Focus on research:

It is really a fact that other than a few top B-schools like IIMs, hardly there is hardly any research activity with majority of the teaching focused B-schools in the country. Here six action points have been suggested to boost research focus amongst the B-schools, i.e., i) recruit research active faculty, ii) introduce working paper/seminar series, iii) reduce teaching load of faculty to encourage them to go in for research, iv) introduce publication incentive for faculty, v) grant sabbatical leave to faculty to enable them to engage in research, and vi) setting up of B-school

research center and making them responsible to promote research. With adoption of such action points, faculty motivation is expected to be high to engage themselves in more and more meaningful research and publications.

The number and quality of faculty publications will have a direct impact on the reputation of the B-school as the quality teaching and learning center in the market place. This will have a strong positive impact on the quality of student intake which will facilitate the faculty to reinforce the academic rigor in their courses, enhancing the graduate quality and the consequent positive impact on their competitive edge, and reputation (Figure-11). Again, the reputation of B-school thus built will have a favorable effect on student registration and B-school income that will enable them to make higher budget provision for research enlarging the scope of each of the suggested action plans.

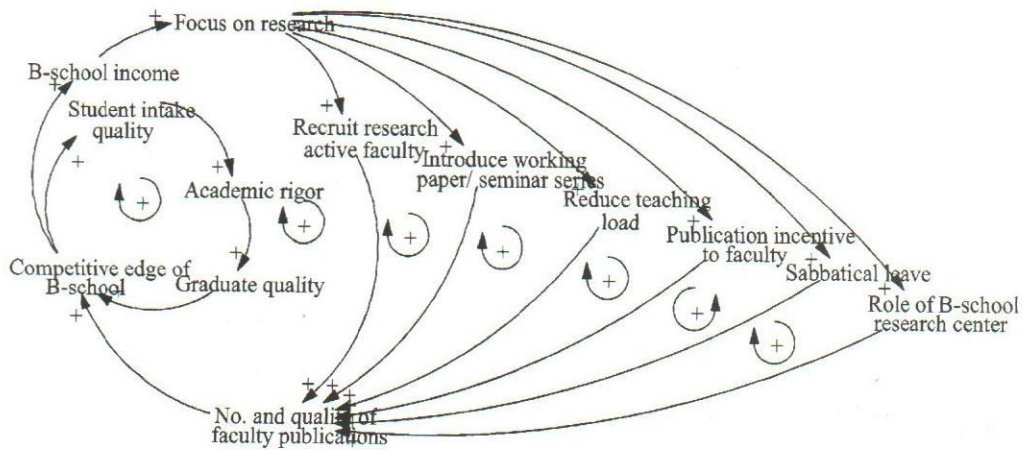


Figure 11: Focus on research

Conclusion

Quality improvement of MBA program of the majority of B-schools in the country is the burning issue, particularly when ninety-three per cent of MBAs have been rated as unemployable. The quality of the faculty team along with their sincere involvement is the fulcrum behind the effectiveness of all such strategies. Infrastructures, and technology of teaching and learning apart, the policies and procedure of B-schools play a dominant role for effective involvement and utilization of their faculty. The vision of the B-school president, his or her continuous involvement and encouragement along with the support of the academic and administrative management team is

indeed crucial for each and every student and faculty to achieve still higher targets of learning and development.

When managerial skill development of MBA students is the top priority, teachers with experience in both the academic and business world can bridge the gap of expectation between these two worlds, thereby prepare the MBA students in a more matured way. Proper advising should be given to students on the choice of subject specialization in tune with their ability and likely future performance, not always based on current job prospects. Balance is needed between the academic rigor and pragmatic diversions in our courses, particularly when managerial skill development is the priority. Much more

research is needed on many such issues towards reengineering majority of the B-schools of the country towards the path of sustainability and transform them as centers of excellence for developing effective business leaders of the country.

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"To any entrepreneur: if you want to do it, do it now. If you don't, you're going to regret it."

– Catherine Cook

A Study of Effect of NPAs on the Financial Performance of Public Sector Banks in India

PREETI AND KULDIP SINGH CHHIKARA

Presently, the Indian Banking System is passing through an uncertain phase of distress due to growing NPAs (Non-Performing Assets) having negative impact on the performance of the banks in particular and growth & development of the nation in general. The present study is purely based on secondary data collected from various sources and were analyzed with the help of appropriate statistical techniques such as Mean, Standard Deviation, CAGR, Diagrams, and Charts, etc. to draw the conclusions. A very high degree of negative correlation was found between NPAs and ROA & ROE of the PSBs indicating towards a very high degree of negative impact of NPAs on the banks' financial performance. It was exposed through the results of the study that the problem of bad loans has matured with the passage of time due to irresponsible role played by the top level management of public sector banks in general and the regulatory authorities in particular. Further, the populist government schemes have also told upon the health of the banks and hence serious and stringent actions and decisions are required to be taken and implemented at various levels not only by banks but also by RBI, other regulatory authorities and GOI to boost the financial position of the banks in general and of the economy of the country in particular.

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Introduction

A well-managed banking sector is the pre-requisite for a robust economy. Any collapse in the banking system may result into a multiplier impact on all the sectors of economy. The banking system mobilizes the funds in various sectors of the economy for effective and productive purposes. Banks are more directly and intricately related to the performance of the economy and acts as a source of hope for the masses by acting as a development agency (Singh, A., 2013). The role of banking in an economy can never be denied as it supports in the areas of paramount importance like, by providing funds, proper mobilization of saving and investment and to rescue the economy from the trap of under-development, predominantly when our country is a developing one (B.Selvarajan & Vadivalagan, 2013). Now-a-days, the Indian banking system is going through a stressed phase of mounting NPAs which are acting as a hurdle in growth of the economy. The NPAs are believed to be a major constraint in the financial health and performance of the banks. It indicates the financial stability of the concerned sector. (Gupta and Gautam, 2017). The growing NPAs signal towards the lending risk faced by the banking sector (Rana, P., 2016). If stringent actions followed by policy changes are not taken timely to control NPAs, the same will result into need of higher provisioning for NPAs which will adversely banks profitability and in turn the economy as a whole. (Mahajan, 2014). As per the ratings given by CARE, there present 18 PSBs among Top 20 Banks with highest gross NPAs¹ which is a matter of concern.

Objectives of the Study

1. To study the pattern of gross and net NPAs in the public sector banks in India including wilful defaulters.

2. To study the effect of NPAs on the financial performance of Public Sector Banks.

Research Methodology

Research Design: The present study is descriptive as well as analytical in nature.

Data Collection: The data were collected through various secondary sources like, Handbook of Statistics on Indian Economy, Centre for Monitoring Indian Economy, RBI, annual reports of GOI, journals, magazines and other sources, etc.

Statistical Tools: The secondary data collected from various sources were analyzed with the help of suitable statistical tools and techniques such as, percentage, standard deviation, regression, CAGR, etc.

Review of Literature

Singh, A. (2013) considered NPA as the best indicator of the financial health of any bank. The study highlighted the gross and net NPAs in public and private sector banks in India. The study suggested that some of the measures like, proper evaluation of the loan application, proper credit monitoring, establishment of Debt Recovery Tribunals and effective implementation of existing laws, etc. should be taken in order to reduce the size of NPAs in banking system of India.

KT, Srinivas. (2013) explained the reasons for advances becoming NPAs in the Indian banking sector. The study also depicted the NPAs as a percentage of advances during the period 1996-97 to 2011-12. It is suggested through the results of the study that reduction of NPAs in

Table 1: Gross and Net NPAs Public Sector Banks

(Amount in Rs. billion)

| Year (End-March) | Advances | | Non-Performing Assets | | | |
|---------------------|----------|----------|-----------------------|------------------------------|----------|----------------------------|
| | | | Gross | | Net | |
| | Gross | Net | Amount | As %age of Gross Advances | Amount | As %age of Net Advances |
| 2007-08 | 18190.74 | 17974.01 | 404.52 | 2.2 | 178.4 | 1 |
| 2008-09 | 22834.73 | 22592.12 | 449.57 | 2 | 211.6 | 0.9 |
| 2009-10 | 27334.58 | 27013 | 599.26 | 2.2 | 293.8 | 1.1 |
| 2010-11 | 30798.04 | 33056.32 | 746 | 2.4 | 360 | 1.2 |
| 2011-12 | 35503.89 | 38773.08 | 1172.62 | 3.3 | 592.1 | 1.5 |
| 2012-13 | 45601.69 | 44728.45 | 1644.61 | 3.6 | 899.5 | 2 |
| 2013-14 | 52159.2 | 51011.37 | 2272.64 | 4.4 | 1303.6 | 2.6 |
| 2014-15 | 56167.18 | 54762.5 | 2784.68 | 5 | 1599.5 | 2.9 |
| 2015-16 | 58183.48 | 55935.77 | 5399.56 | 9.3 | 3203.8 | 5.7 |
| 2016-17 | 58521.32 | 55521.74 | 6847 | 11.7 | 3831 | 6.9 |
| Total | 405294.9 | 401368.4 | 22320.46 | 5.507215 | 12473.3 | 3.107694 |
| Mean Score | 40529.49 | 40136.84 | 2232.046 | 4.61 | 1247.33 | 2.58 |
| SD | 15445.5 | 14386.67 | 2223.532 | 3.30839 | 1294.971 | 2.092739 |
| CoV | 38.1093 | 35.84406 | 99.61856 | 71.76551 | 103.8194 | 81.11391 |
| CAGR | 12.39484 | 11.9391 | 32.69545 | 18.1888 | 35.89132 | 21.30673 |

Source: Reserve Bank of India

Indian banking system should be considered as priority item in order to make banking system more strong and developed.

Rao, M. and Patel, A. (2015) through their study detailed about the concept, types and causes of NPAs in banking sector. The study highlighted the various NPA related ratios. It was found through the study that ratio of gross NPA to gross advances didn't have any significance difference during the period under the study i.e. 2009 to 2013.

KS, Ayab and Panwar, V. (2016) outlined the importance of managing NPAs as they directly influence the profitability of public and private sector banks. It was found through the study that in the year 2016, the percentage of NPAs was more than double of the previous year which demands the attention of concerned authority that serious steps are required to be taken to overcome the problem of NPAs in India.

Analysis and Interpretation

The secondary data regarding gross and net NPAs of public sector banks (Table 1) were collected for a period of 10 years (2007-08 to 2016-17) through various sources and statistical tools and techniques were applied.

The analytical table 1 depicts the information pertaining to gross and net NPAs of public sector banks during the period of 10 years i.e. 2007-08 to 2016-17. The gross advances during the period increased significantly from Rs. 18190.14 billion to Rs. 58521.32 billion, which is nearly 3 times of the gross advances in the year 2007-08. The average gross advances were registered as Rs. 40529.49 billion with the deviation of Rs. 15445.5 billion from the mean value resulting into a high volatility of 38.11 per cent. The net advances were Rs. 17974.01 billion in the year 2007-08 which increased to Rs. 55521.74 billion by the end of 2016-17 with a compound annual growth rate of 11.94 per cent. The gross as well as net advances of PSBs were registered more than the mean score from the year 2012-13 to 2016-17, while they were significantly low during the preceding years i.e. 2007-08 to 2011-12.

The gross NPAs remained below average for first six years of the study but during the year 2013-14, a sudden hike was observed and gross NPAs were found to be nearly 1.4 times that of previous year 2010-11 and the same continued for the remaining years. High volatility was observed both in the gross advances as well as in gross NPAs i.e. 38.11 per cent and 99.62 per

cent respectively, which in turn adversely affected the lending capacity of the public sector banks. It is also clear from the table that both the gross as well as net NPAs of PSBs elevated manifolds in such a way that gross and net NPAs at the end of 2016-17 were nearly 17 times and 22 times of that of gross and net NPAs in the year 2007-08. As exhibited by the table, the total net NPAs amounted to Rs. 12473.3 billion with an average of Rs. 1247.33 billion and a very high standard deviation from the mean value resulting into high rate of volatility i.e. 103.82 per cent. The net NPAs for the period under the study were nearly i.e. 3.11 per cent of net advances given by public sector banks. The higher growth rate in gross NPAs (32.69 per cent) as well as in net NPAs (35.89 per cent) as compared to that of gross advances (12.39 per cent) and net advances (11.93 per cent) generates an alarming signal indicating towards the declining proficiency of public sector banks to lend as revealed through **Figure 1**.

Table 2 depicts the information relating to the Gross Non-Performing Assets (NPAs) and Gross Advances by Priority and Non-priority Sectors. The total gross advances during the period under the study i.e. 2012-13 to 2016-17 were found to be Rs. 237160070 million with an average of Rs. 47432014 million and a growth rate of just 4.86 per cent. Out of total Gross Advances nearly 35 per cent in each year belonged to priority sector whereas approximately 65 per cent were relating to non-priority sector. The gross advances in priority sector increased with a higher growth rate (8.91 per cent) in comparison to gross advances in non-priority sector.

It is also clear from the table that total NPAs during the study amounted to Rs. 17785080 million out of which Rs. 5221690 million belonged to priority sector while Rs. 12563390 were related to non-priority sector. As far as CAGR is concerned, the NPAs in non-priority sector surged with a high growth rate of 40.47 per cent while it is 18.19 per cent in case of priority sector. It is clear from the table that as far as lending is concerned, PSBs are just lending nearly 33 per cent of total advances to priority sector while the greater NPAs are found to be present in case of non-priority sector i.e. approximately 8.16 per cent of total gross advances lend to non-priority sector. In the year 2012-13, the total NPAs were 3.84 per cent of total gross advances but in the next years, it increased continuously in such way that in the fifth year i.e. 2016-17, the total NPAs were mounted to 12.47 per cent of total gross advances. As far as priority sector is concerned,

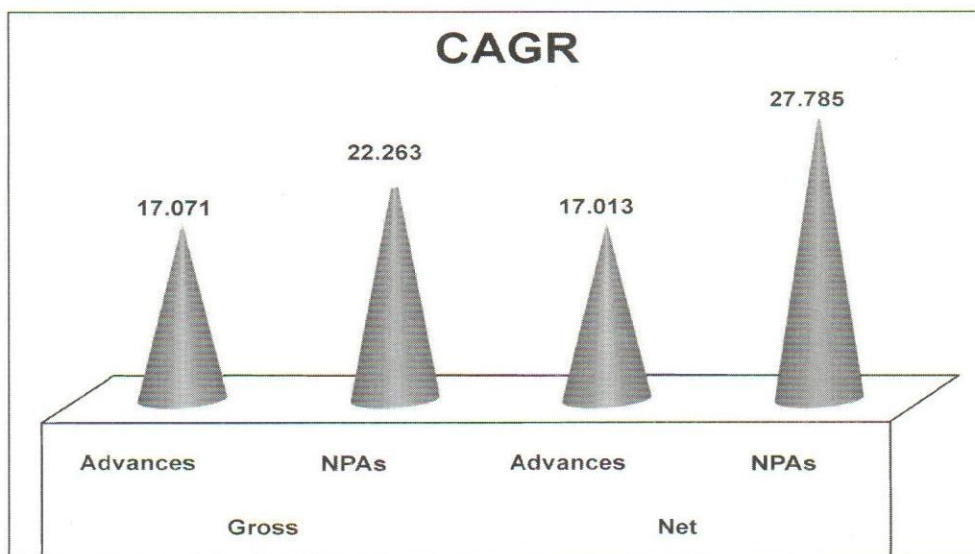


Figure 1. CAGR in Advances and NPAs of Public Sector Banks in India

Table 2 : Gross Non-Performing Assets (NPAs) and Gross Advances by Priority and Non-priority Sectors: Public Sector Banks

(Amount in Rs. Million)

| Year | Gross Advances | | | Gross NPAs | | | (iv) as a %age of (i) | (i) as a %age of (ii) | (v) as a % age of (iii) |
|-------------------|----------------|-------------------------|------------------------------|---------------|------------------------|-----------------------------|-----------------------------------|-----------------------------------|-------------------------------------|
| | Total (i) | Priority sector (ii) | Non-priority sector (iii) | Total (iv) | Priority sector (v) | Non-priority sector (vi) | | | |
| 2012-13 | 40,559,000 | 12,790,000 | 27,769,000 | 1,559,000 | 669,000 | 890,000 | | | |
| | (100.00) | (31.53) | (68.47) | (100.00) | (42.91) | (57.09) | 3.84 | 5.23 | 3.21 |
| 2013-14 | 45,904,580 | 15,192,980 | 30,711,600 | 2,167,390 | 791,920 | 1,375,470 | | | |
| | (100.00) | (33.09) | (66.91) | (100.00) | (36.54) | (63.46) | 4.72 | 5.21 | 4.48 |
| 2014-15 | 48,452,690 | 16,859,540 | 31,593,150 | 2,627,450 | 936,850 | 1,690,600 | | | |
| | (100.00) | (34.80) | (65.20) | (100.00) | (35.66) | (64.43) | 5.42 | 5.56 | 5.35 |
| 2015-16 | 50,821,560 | 18,737,480 | 32,084,080 | 5,020,680 | 1,281,160 | 3,739,520 | | | |
| | (100.00) | (36.87) | (63.13) | -(100.00) | (25.52) | 520(74.48) | 9.88 | 6.84 | 11.66 |
| 2016-17 | 51,422,240 | 19,599,150 | 31,823,090 | 6,410,560 | 1,542,760 | 4,867,800 | | | |
| | (00.00) | (38.11) | (61.88) | (100.00) | (24.06) | (75.94) | 12.47 | 7.87 | 15.30 |
| Total | 237,160,070 | 83,179,150 | 153,980,920 | 17,785,080 | 5,221,690 | 12,563,390 | | | |
| Mean Score | 47,432,014 | 16,635,830 | 30,796,184 | 3,557,016 | 1,044,338 | 2,512,678 | | | |
| CAGR | 4.86 | 8.91 | 2.76 | 32.68 | 18.19 | 40.47 | | | |

Source: CMIE, Economic Outlook

Figures in brackets represent the percentage of total

gross NPAs in priority sector were increased from 5.23 per cent of priority sector advances in the year 2012-13 to 7.87 per cent of priority sector advances in the year 2016-17. In case of non-priority sector, gross NPAs surges from 3.21 per cent (in the year 2012-13) of gross advances in non-priority sector to 15.30 per cent in the year 2016-17. It is established through the analysis that the NPAs of

non-priority sector have hit very hard to the Indian banking system in comparison to the priority sector and have dented seriously the financial performance of the same.

The analytical Table 3 depicts the information relating to the number of wilful defaulters in Public Sector Banks and FIR filed in India. As evident from the table, over a

Table 3: NPAs in Public Sector Banks in India, Number of Wilful Defaulters (More Than 25 Lakhs and Above) and Cases in which FIR Filed in India (Public Sector Banks)

(Amount in Rs. billion)

| Particulars\ Date | | 31.3.2013 | 31.3.2014 | 31.9.2015 |
|-------------------|--|-----------|-----------|-----------|
| NPAs* (Amount) | Gross | 1644.61 | 2272.64 | 2784.68 |
| | Net | 899.5 | 1303.6 | 1599.5 |
| Wilful Defaulters | Number | 4929 | 6173 | 7265 |
| | Amount | 2.58042 | 4.3873 | 6.433459 |
| | (as a % age of Net NPAs) | 0.28 | 0.34 | 0.4 |
| FIR Filed | Number | 831 | 1064 | 1624 |
| | Amount | 0.551659 | 0.879364 | 1.66019 |
| | Number (as a % age of Wilful Defaulters) | 16.86 | 17.24 | 22.35 |
| | Amount (as a % age of Wilful Defaulters) | 21.38 | 20.04 | 25.81 |

Source: Indiatat

*- The data relating to NPAs include the data pertaining to the F.Y. 2012-13, 2013-14 and 2014-15.

period of 3 years the number of wilful defaulters increased from 4929 to 7265 involving an amount of Rs. 6.433459 billion. It is also found that FIR filing rate is just 16.86 per cent of wilful defaulters drawing the attention towards the loopholes in the system. 831 FIR were filed up to 31st March, 2013 which increased to 1624 by March 2015. The analytical table 3 also illustrates the information concerning the NPAs and wilful defaulters in PSBs in India. The gross as well as net NPAs have surged sharply during the period under the study. The amount involved due to wilful defaulters at the end of F.Y. 2012-13 was registered as Rs. 2.58 billion which has increased to 2 and 3 times by March 2014 and 2015, respectively.

The amount indulged in NPAs due to wilful defaulters was nearly 0.28 per cent, 0.34 per cent and 0.40 per cent of net NPAs in public sector banks by the end of March 2013, 2014 and 2015, respectively, which hints towards

the inaction of the concerned authorities towards a serious problem spreading at a very high rate and ready to swallow the system.

Impact of NPAs on ROA (RETURN ON ASSETS)

In order to analyze the impact of NPA on ROA, linear regression model was applied taking NPA as an independent variable and ROA as dependent variable for a period of nine years i.e. 2008-09 to 2016-17. Following Tables 4(A) to 4(D) depict the results of the study:

The analytical Table 4(A) depicts the presence of very high degree of negative correlation (-.972) between the variables under the study i.e. NPA and ROA indicating that an increase in NPAs of Public Sector Banks would lead to decline in ROA of PSBs in India or vice-versa.

The model summary exposed the strength of

Table 4(A): Correlations

| | | | |
|---------------------|-----|-----|-------|
| Pearson Correlation | ROA | ROA | 1.000 |
| | | NPA | -.972 |
| | NPA | ROA | -.972 |
| | | NPA | 1.000 |
| Sig. (1-tailed) | ROA | ROA | |
| | | NPA | .000 |
| | NPA | ROA | .000 |
| | | NPA | |
| N | ROA | ROA | 9 |
| | | NPA | 9 |
| | NPA | ROA | 9 |
| | | NPA | 9 |

Table 4(B): Model Summary^b

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | | Durbin-Watson |
|-------|-------------------|----------|-------------------|----------------------------|-------------------|----------|-----|-----|---------------|---------------|
| | | | | | Square Change | F Change | df1 | df2 | Sig. F Change | |
| 1 | .972 ^a | .946 | .938 | .11527 | .946 | 121.794 | 1 | 7 | .000 | 1.654 |

a. Predictors: (Constant), NPA

b. Dependent Variable: ROA

relationship between the model and the variables. R (.972a), is the linear correlation coefficient, higher the value of R indicates stronger the relationship among the variables. R Square, which is the squared value of linear correlation coefficient, is the coefficient of determination depicting the model enlightens 94.6 per cent of the variation which indicates that the 94.6 per cent variation in ROA (Dependent variable) is caused by the independent variable

i.e. NPA. It can be observed through the results of the study that, the independent variable, NPAs, is able to explain around 95 per cent the variation of the dependent variable i.e. ROA of PSBs in India. The value of Durbin-Watson (1.654) is less than 2.000 indicating the reliability of the model.

The ANOVA table 4 (C) demonstrates the

Table 4(C): ANOVA^a

| Model | Sum of Squares | Df | Mean Square | F | Sig. |
|--------------|----------------|----|-------------|---------|-------------------|
| 1 Regression | 1.618 | 1 | 1.618 | 121.794 | .000 ^b |
| Residual | .093 | 7 | .013 | | |
| Total | 1.711 | 8 | | | |

a. Dependent Variable: ROA

b. Predictors: (Constant), NPA

acceptability of the model from a statistical point of view. The regression row and the residual row demonstrate the details about the variation accounted for and not accounted

for by the model, respectively.

The analytical Table 4 (D) states the coefficient and

Table 4(D): Coefficients^a

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Collinearity Statistics | |
|-------|------------|-----------------------------|------------|---------------------------|---------|------|-------------------------|-------|
| | | B | Std. Error | Beta | | | Tolerance | VIF |
| 1 | (Constant) | 1.165 | .065 | | 17.907 | .000 | | |
| | NPA | -.210 | .019 | -.972 | -11.036 | .000 | 1.000 | 1.000 |

a. Dependent Variable: ROA

collinearity statistics. The collinearity statistics are tolerance and VIF, as per the rule, it is stated that the value of VIF should not be more than 10 and of tolerance should not be less than 0.02, if it is the case then it puts the question on the applicability of the model. As clear from the table above, the value of VIF is 1.000 (less than 10) and the tolerance statistics is 1.000 i.e. above 0.02 for the independent variable. Hence, it can be believed that the regression model is suitable and there is no predicament regarding collinearity among the variables used in the model. The relationship between dependent

and independent variable is explained with the help of b-value. As stated in the table, the b-value is -.972 for NPAs stating that if NPAs increase by 1 unit the dependent variable would decline by .972 units.

Impact of NPAs on ROE (RETURN ON EQUITY)

In order to examine the statistical relationship between the NPAs of PSBs of India and ROE for the period of nine years i.e. 2008-09 to 2016-17 linear regression method was applied {Table 5(A)}.

Table 5(A): Correlations

| | | ROE | NPA |
|---------------------|-----|-------|-------|
| Pearson Correlation | ROE | 1.000 | -.972 |
| | NPA | -.972 | 1.000 |
| Sig. (1-tailed) | ROE | . | .000 |
| | NPA | .000 | . |
| N | ROE | 9 | 9 |
| | NPA | 9 | 9 |

Table 5(B): Model Summary^b

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | | Durbin-Watson |
|-------|-------------------|----------|-------------------|----------------------------|-------------------|----------|-----|-----|---------------|---------------|
| | | | | | Square Change | F Change | df1 | df2 | Sig. F Change | |
| 1 | .972 ^a | .945 | .938 | 2.04897 | .945 | 121.405 | 1 | 7 | .000 | 1.440 |

a. Predictors: (Constant), NPA

b. Dependent Variable: ROA

It is evident from the Table 5 (A) that a very high degree of negative correlation (-.972) is present among the two variable i.e. NPAs and ROE under the study. Negative correlation indicates an increase in NPAs would lead to shrink in ROE.

The analytical table 5(B) shows the model summary indicating the strength of relationship between the model and the variables. R (.972a) is the linear correlation coefficient depicting the strong relationship between the observed and model predicted values of the dependent variable. R Square (coefficient of determination) stating 94.5 per cent of the variation which indicates that the 94.5 per cent variation in dependent variable is caused by the independent variable. It is exposed through the results of the study that the value of Durbin-Watson (1.440) is less than 2.000, indicating towards the reliability of the model.

The ANOVA table 2 (D) tests and exhibits the acceptability of the model from a statistical perspective. The regression row and the residual row demonstrate the information about the variation accounted for and not accounted for by the model, respectively.

The analytical Table 2 (E) specifies the coefficient and collinearity statistics. The value of collinearity statistics i.e. of tolerance and VIF should be less than 10 and more than 0.02, respectively. As exhibited by the table above, the value of VIF is 1.000 (less than 10) and the tolerance statistics is 1.000 i.e. above 0.02 for the independent variable indicating the suitability of the regression model and there is no predicament regarding collinearity among the variables used in the model. B-value (-0.972) states the relationship between dependent and independent variable, if NPAs increase by 1 unit there would be decline of 0.972 units in the dependent variable i.e. ROE.

Table 5(C): ANOVA^a

| Model | Sum of Squares | Df | Mean Square | F | Sig. |
|--------------|----------------|----|-------------|---------|-------------------|
| 1 Regression | 509.694 | 1 | 509.694 | 121.405 | .000 ^b |
| Residual | 29.388 | 7 | 4.198 | | |
| Total | 539.082 | 8 | | | |

a. Dependent Variable: ROA

b. Predictors: (Constant), NPA

Table 5(D): Coefficients^a

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. | Collinearity Statistics | |
|-------|------------|-----------------------------|------------|---------------------------|---------|------|-------------------------|-----|
| | | B | Std. Error | Beta | | | Tolerance | VIF |
| 1 | (Constant) | 20.454 | 1.156 | | 17.693 | 0 | | |
| | NPA | -3.73 | 0.338 | -0.972 | -11.018 | 0 | 1 | 1 |

a. Dependent Variable: ROA

Conclusion

It was established through the results of the study that the problem of NPAs increased at a faster rate during the later years of the study in comparison to the initial years where the rate of growth was low. The study affirms a high rate of lending to the priority sector by the PSBs in

comparison to the non-priority sector but average exposure for the priority sector was only around 33 per cent while the lion's share of 67 per cent was enjoyed by the non-priority sector and consequently even at a lower rate of NPAs of this sector hit very hard below the belt of PSBs' and the irresponsible behavior and decision-making by top level management added further to the problem which also

induced the problem of wilful defaulters. It is evident from the results of the study that the NPAs have adversely affected the financial performance of the banks with a very high degree of negative correlation. Since, the problem of bad loans is old one, it points out towards the ineffective control mechanism adopted by various regulatory authorities including auditors, RBI, SEBI, etc. which needs to be improved for the general good health of the economy.

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“Entrepreneurship is neither a science nor an art. It is a practice.”

– Peter Drucker

Genetic Diversity and its Impact on Productivity of Cotton Crop in Punjab

JOGINDER SINGH

The traditional cotton belt of Punjab state has made significant contribution to India's cotton production and a source of livelihood. The area under the crop has shown marked difference due to varying productivity, jeopardising the mere sustainability of the crop. The basic issues namely: plant protection practices for changing scenario of insect-pests and choice of suitable varieties remained haunting. The pre-Bt period had witnessed a serious attack of bollworms adversely affecting the crop productivity and area under cotton crop cultivation. There was a rapid diversification of varieties which were short field life but put together elongated the crop season and thus encouraged the pests. However, the situation improved with evolutions of Bt varieties in 2002-03. The crop productivity responded well during its introduction period, showing CGR of 11.8% and consequently area under the crop increased. Left to the choice of farmers to select Bt varieties/trade names out of scores available, did not have the desired impact as the crop yield did not improve. Analysis for the overall study period favoured genetic diversity for productivity improvement. This potential belt, which has already lost more than 55% cotton area stands further endangered and calls for measures for its revival through area-specific short-listing of varieties, discouraging paddy crop.

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1. Introduction

Cotton is one of the most important crops of India and has played a dominant role in its economic development. The country has been the producer of cotton and also of the finest and most beautiful cotton fabrics since the Indus Valley Civilization which flourished in the Indian sub-continent some 5000 years ago. Practically, till the end of 18th Century, no source of supply of cotton other than India was known to the World (Directorate of Cotton Development, GOI, 2017).

Punjab, which witnessed green revolution in wheat and rice crops about five decades ago, continues to have cotton as the third major crop and second to paddy crop in summer season. Due to light soil, low rainfall and brackish groundwater, south-western part of the state has come to stay as the potential cotton belt. Punjab state has been contributing about 10% of nation's total output of cotton. The crop also has great economic importance in terms of high human labour employment, value addition and export orientation apart from ecological considerations, particularly in terms of less water requirements.

However, area under the crop has been fluctuating with declining trend overtime due to serious pest attack, specifically that of *heliathis* during mid-eighties and nineties. The consequent fall in productivity from 510 kg/ha in 1986-87 to 366 kg/ha in 2001-02 resulted in deceleration in area from 759 thousand ha in 1988-89 to 450 thousand ha in 2002-03. This resulted in diversion in area from cotton to rice crop, which does not corroborate with the ecology of this belt.

Introduction of Bt cotton in 2003-04 did provide a ray of hope to rectify the scenario. The next five years witnessed improvement in area under cotton with compound growth rate (CGR) of 7.34% and yield improved

by 10.04% (Table 1). But the system could not sustain itself due to the emergence of jassid, mealy bug, white fly, other sucking insect-pests and leaf curl disease in sporadic forms. The crop productivity has thus slipped down at CGR of -11.80% recently. Apart from various agronomic controls and plant protection measures, the crop genetics and the choice of appropriate varieties of cotton crop by the farmers are believed to have made significant impact on crop yield.

Therefore, this study was mounted with the objectives:

- a) To delineate the genetic shift in cotton crop with respect to varietal picture, particularly by the introduction of Bt gene in Indian Punjab.
- b) To study its impact on productivity of cotton crop and shift in crop pattern in the cotton belt.
- c) To suggest policy issues with a view to save and revive cotton crop in the state.

Table 1: Compound Growth Rate (%) in area and yield of cotton in Punjab

| Year | Area (000 ha) | Yield (kg of lint/ha) | Production (000 bales of 170 kg each) |
|--|---------------|-----------------------|---------------------------------------|
| 1980-81 | 649 | 309 | 1178 |
| 1990-91 | 701 | 463 | 1909 |
| 2000-01 | 474 | 430 | 1200 |
| 2010-11 | 483 | 641 | 1822 |
| 2015-16 | 335 | 197 | 389 |
| Compound Growth Rate | | | |
| Pre-Bt period (1984-85 to 2002-03) | -0.26 | -3.00 | -3.25 |
| Transitional Phase- Bt introduction (2002-03 to 2006-07) | 7.34 | 10.04 | 18.22 |
| Bt era (2006-07 to 2015-16) | -5.16 | -11.80 | -16.36 |

2. Methodology

The secondary data on area, yield and production of cotton were available from Statistical Abstracts of Punjab (ESO, 2016). Under the scheme 'Cotton crop Prospect surveys in Punjab' (Department of Economics & Sociology PAU), the primary farm level data was collected by the author every year from 1983-84 to 2003-04. Sampling scheme followed for the survey was random selection of farmers out of the well clustered cotton blocks. Initially about 200 farmers were taken while sample size subsequently was enlarged up to 400. The area under different varieties overtime reported by the farmers has been used in this paper. Again under the impact assessment studies (Singh, 2012), the data about the cotton varieties adopted by the farmers of Punjab from 2006 to 2012 were examined for the analysis. The whole analysis pertains only to phenotypes rather than genotypes or parentage of such varieties.

For each year, Thiel's Entropy index (Et) (Theil, 1972) was used to work out the varietal diversification of cotton in the state as under:

$$Et = \sum_{i=0}^N \{P_i \log (1/P_i)\}$$

Where P_i is the proportion of area under i^{th} variety to total area under cotton crop on the sample farms during the year. And Et varies from 0 to $\log N$ where N is the number of varieties adopted by the sample farmers.

Life of a variety: The life of a variety was arbitrarily taken as the period when it covered at least 2% of the area under cotton in the Punjab state.

Regression analysis: In plants, genetic make-up (quality of seed) and optimization of gene technology contributes 50-60% to yield (Choudhary & Laroia, 2001). Seriousness of pest attack (based on score 0 indicating

no damage to 10 signifying complete damage) during the year was reported by the respondent farmers. Therefore, the impact of varietal diversity (Dt) and intensity of pest attack (Pt) on crop yield (Yt) was estimated through linear regression analysis ($Yt = a + bDt + cPt$) for period I and period III. Period II was too short to run the analysis.

3. Results and Discussion:

In the undivided Punjab, organised cotton breeding work was started with the establishment of Punjab Agricultural College and Research Institute, Lyallpur (Now Faisalabad in Pakistan) in 1906. The seeds called '*Punjabi Narma*' (*G. hirsutum*) were found to have established in parts of Punjab as early as in 1912 and Milne selected a variety '4F', resistant to jassids from *Punjabi Narma*, which was widely grown in Punjab. In a landmark development, Sardar Labh Singh developed a late maturing jassid resistant variety called as LSS (Labh Singh Selection) from F4 in 1933, which remained popular for more than two decades. But these varieties were of long duration and caused inordinate delays in sowing of wheat as the next crop (CICR, 2011).

Studies have indicated availability of lines which are stable in their performance over locations and seasons. Genetic improvement of yield, fibre properties, lint percent, seed oil, earliness and resistance to key pests and diseases has been targeted and considerable success has been achieved through various breeding techniques (Basu, 1996).

Later on a large number of varieties were developed by Punjab Agricultural University and various other research institutions. The farmer is free to make a choice of varieties and he generally considers certain profitability parameters such as;

- i) Additional gain in yield over the prevalent varieties impacting the profitability of the crop.
- ii) Quality of cotton in terms of Fibre length (mm), Ginning outturn (%), Fibre strength (g/tex) and Spinnability (s Counts) usually considered by the buyers.
- iii) Resistance to serious pests and plant protection efforts required for effective control.
- iv) Cost reduction through appropriate plant height facilitating picking
- v) Requirements of fertilizers, seed and other inputs.

- vi) Suitability to abiotic stresses, particularly tolerance to salts and moisture variations etc.
- vii) Growing period or crop duration in terms of number of days in the field such that it facilitates sowing of following wheat crop in sequence.

Some Bt cotton varieties exhaust the soil of nutrients and it was perceived that the same variety should not be replicated on a field year after year.

3.1 Cotton yield and varietal Diversity

In this section, the three distinct time periods earmarked on the basis of trends in cotton productivity are viewed in relation to genetic transformation in Punjab.

3.1.1 Pre-Bt Period (1984-85 to 2002-03)

Due to serious pest problem, the productivity of cotton declined and the competing rice crop stormed in the crop pattern of the area, causing soil salinity and high humidity which is more conducive for cotton pests. This trend continued for about two decades till the end of 20th century. The changing biotic and abiotic stresses necessitated new genetic research. It was observed that the old varieties were stable and survived for longer period while the new varieties could sustain for short span. As presented in **Table 2**, initially there were a few but quite stable varieties as an option for farmers. With the passage of time, the farmers had more choice for newly developed genetic material, suitable for different farm situations. The average life of varieties which entered the field through research system or otherwise till 1990 was estimated to 9.2 years while after that till 2002-03, the varieties, on an average could be sustained only for 4.8 years. The longer life of a variety was considered relevant and provided stability to the crop yield but became more vulnerable due to increasing susceptibility and persistence of pests and diseases.

Based on the primary farm level data, the varietal diversification index for every year during the period 1983-2003 was worked out. The diversification index tended to improve till the end of century. The Theil's diversification index was estimated at 0.7124 in 1983-84, which shot up to 1.1322 in 1998-99 but with the initiation of Bt varieties, it came down to 0.7364 in 2002-03 and 0.6178 in 2003-04 (**Table 3**). The initially increasing varietal diversification was the outcome of growing awareness amongst farmers for quick response to new varieties and more and more varietal options available. The decline in diversification index

Table 2: Major varieties of cotton and the period of their coverage in Punjab in pre-Bt era

| Variety | Observed field life (years) | Period of coverage |
|-------------------------|-----------------------------|--------------------|
| <i>Bikaneri</i> | 11 | 1975-1986 |
| F286 | 11 | 1976-1987 |
| LH580 | 6 | 1980-1986 |
| J34 | 5 | 1980-1985 |
| LH372 | 4 | 1980-1984 |
| F414 | 16 | 1981-1997 |
| G27 | 3 | 1983-1986 |
| LD230 | 4 | 1984-1988 |
| LH900 | 11 | 1985-1996 |
| F505 | 12 | 1986-1998 |
| <i>Jhurer</i> | 13 | 1986-1999 |
| <i>Ganganagar Ageti</i> | 4 | 1986-1990 |
| LH886 | 5 | 1987-1992 |
| G327 | 14 | 1989-2003 |
| LD1134 | 2 | 1991-1993 |
| F846 | 10 | 1993-2003 |
| F1054 | 5 | 1994-1999 |
| RG8 | 7 | 1995-2002 |
| PL104 | 2 | 1995-1997 |
| <i>Nawab 72</i> | 4 | 1995-1999 |
| LH1556 | 7 | 1996-2003 |
| <i>Sikandrabadi</i> | 6 | 1997-2003 |
| P34 | 2 | 1998-2000 |
| F1378 | 7 | 1997-2003 |
| LH491 | 1 | 1998 |
| LHH144 | 2 | 1998-1999 |

during the later part was attributed to the fact that a number of local (*desi*) strains having short staple length and covering sizable area till 1980's almost vanished with the cotton crop being grown for commercial purposes.

3.1.2 Transitional Phase - Bt introduction (2002-03 to 2006-07)

To escape the serious attack of bollworms, a few private companies introduced Bt strains of cotton in states like

Table 3: Per cent area under major varieties of cotton in Punjab, 1983 to 2003

| Year | F414 | F286 | LH900 | F505 | Jhurer | Bikaneri/ G. Ageti | LH580 | G327 | F846 | F1378 | S.Badi | RG8 | D. Index | N* |
|------|-------|-------|-------|-------|--------|-----------------------|-------|-------|-------|-------|--------|------|-------------|----|
| 1983 | 22.91 | 23.82 | | | | 27.84 | | | | | | | 0.7124 | 8 |
| 1984 | 33.95 | 27.53 | | | | 19.27 | 0.45 | | | | | | 0.6970 | 9 |
| 1985 | 32.07 | 33.04 | 11.17 | | 0.93 | 8.16 | 3.50 | | | | | | 0.7444 | 12 |
| 1986 | 26.79 | 22.19 | 12.29 | 2.06 | 5.96 | 9.31 | 13.86 | | | | | | 0.8620 | 12 |
| 1987 | 20.52 | 7.41 | 11.15 | 5.20 | 22.85 | 7.45 | 20.32 | 1.04 | | | | | 0.8696 | 12 |
| 1988 | 11.32 | 3.26 | 14.37 | 12.81 | 33.94 | 6.51 | 8.43 | 3.95 | | | | | 0.8769 | 14 |
| 1989 | 17.42 | 0.99 | 6.78 | 8.10 | 41.73 | 5.49 | 10.66 | 3.31 | | | | | 0.7977 | 13 |
| 1990 | 20.19 | 0.42 | 5.64 | 7.56 | 50.99 | | 7.53 | 4.00 | | | | | 0.6703 | 13 |
| 1991 | 13.88 | 0.63 | 9.01 | 9.31 | 50.56 | | 4.65 | 5.58 | 0.10 | | | | 0.7222 | 13 |
| 1992 | 12.39 | | 9.37 | 9.22 | 50.17 | | 2.62 | 7.08 | 1.59 | | | | 0.7266 | 12 |
| 1993 | 10.67 | | 5.96 | 5.35 | 48.84 | | 0.52 | 3.98 | 20.00 | | | | 0.6881 | 11 |
| 1994 | 8.12 | | 4.72 | 5.48 | 30.78 | | 0.56 | 5.85 | 38.19 | | | | 0.7334 | 12 |
| 1995 | 1.27 | | 2.05 | 0.80 | 21.54 | | | 6.93 | 37.84 | | | 1.30 | 0.8221 | 13 |
| 1996 | 2.77 | | 2.05 | 1.55 | 21.84 | | | 9.70 | 34.90 | 0.67 | 1.50 | 2.56 | 0.9080 | 15 |
| 1997 | 2.96 | | 2.64 | 2.55 | 4.99 | | | 8.67 | 34.41 | 6.21 | 4.92 | 3.60 | 1.0114 | 16 |
| 1998 | 1.90 | | 3.29 | 4.16 | 6.94 | | | 11.22 | 13.49 | 17.53 | 1.74 | 7.17 | 1.1322 | 18 |
| 1999 | 1.36 | | 2.20 | 0.92 | 1.12 | | | 15.88 | 23.70 | 25.36 | 3.20 | 8.16 | 0.9113 | 17 |
| 2000 | 1.84 | | 0.78 | | 1.61 | | | 29.17 | 11.52 | 12.87 | 10.24 | 6.83 | 0.8721 | 12 |
| 2001 | 0.29 | | 0.74 | | 5.51 | | | 14.43 | 4.87 | 3.38 | 20.56 | 5.16 | 0.8107 | 13 |
| 2002 | | | 0.12 | | 7.11 | | | 10.38 | 4.85 | 5.68 | 16.09 | 1.76 | 0.7364 | 11 |
| 2003 | | | | | 4.80 | | | 5.92 | 4.80 | 7.29 | 9.54 | 0.23 | 0.6178 | 9 |

*N stands for total number of varieties in the field

Maharashtra, Gujarat, Andhra Pradesh and Karnataka but Punjab was reluctant for its approval due to ongoing controversy over GM crops. By purchasing Bt seeds from these states, the farmers successfully tried and it was a challenge to the research system of the state. Adoption of Bt cotton took place in India in 2002 and in the state of Punjab in 2005-06 (Chahal & Kaur, 2012). Till 2002-03, there were a few specific varieties of cotton adopted by farmers but during 2004-05 there were about four dozen trade names of Bt strains reported to be tried by the farmers. Yet it was a silver lining for the cotton farmers of Punjab who witnessed the significant enhancement of productivity. The 'hit and trial' process to shortlist appropriate varieties added confusion to the farmers due to their built-up experience based perceptions, which varied widely; and effect of advertisements by seed firms and traders. In 2004-05, Punjab Agricultural University (PAU) recommended Bt varieties such as RCH134, RCH314,

MRC6301 and MRC6304 that started gaining popularity. Yet, there were a few unspecified varieties raised by the farmers. As much as 39.7% cotton area was under recommended Bt varieties in Punjab, 10% was under hybrids and remaining 50% under un-recommended varieties. Subsequently more Bt strains were added by PAU. Since only a few Bt varieties with convincing features were available, the choice got limited and diversification index started coming down. In spite of varietal chaos, significant improvement in productivity and thus area under cotton took place.

3.1.3 Phase of Complete Bt coverage (2006-07 onwards)

By 2007, almost the entire cotton area was covered under Bt varieties. The choice of varieties was influenced by their own experience, availability of seed, suggestion of formal extension agencies and canvassing by agents of seed

agencies. It was typical that numerous varieties of cotton were reported to have been tried and shortlisted by the cotton growers. Many of these were not recommended by Punjab Agricultural University. Non-availability of seed of certain varieties, already experienced as better yielder, was also a reason for diversion. Feeling the pulse of farmers, much ahead of sowing time, seed agencies started booking by getting advance payment from farmers. Under this cover, some spurious seeds were also distributed. As presented in **Table 4**, the most dominant varieties were RCH134, MRC 6301, MRC 6304, MRC 7017 and 6488Bt which covered about 70% of the total area

under cotton crop till 2010. The other varieties included MRC6317, Ganga-Kaveri, JK1947, IT905, Jai BT, Mist, MRC6025, OM3, Kot33, Moti, Ankur2534, MRC7031, Tulsi45, Jyoti555, Mahi, Manak, Manat, Manjit, Mukesh, Namdhari.2, Raghav, Rashi, Super Ruby, Shakti, Sharbati, Shilpa, Vishal, and some many other unspecified strains. The genetic spread in terms of 45 such varieties was witnessed in 2015-16. It was partly due to the farmers' perception that the same variety should not be replicated year after year on a field because typical soil nutrients are exhausted and the yield falls.

Table 4: Spread of different varieties (% of cotton area) among the respondents in Punjab

| S.No | Variety | 2007-08 | 2009-10 | 2011-12 |
|------|---------------------|---------------|---------------|---------------|
| 1 | RCH134 | 31.64 | 41.13 | 27.08 |
| 2 | MRC6301 | 12.11 | 6.99 | 1.53 |
| 3 | MRC6304 | 25.91 | 10.74 | 11.16 |
| 4 | RCH314 | 4.00 | 2.09 | 1.05 |
| 5 | MRC7017 | 0.00 | 4.90 | 18.93 |
| 6 | 6488BT | 0.74 | 14.16 | 13.91 |
| 7 | 6588 Bt | 0.00 | 4.10 | 4.44 |
| 8 | MRC6317 | 0.08 | 4.05 | 1.84 |
| 9 | <i>Ganga-Kaveri</i> | | | 1.67 |
| 10 | JK1947 | | | 2.92 |
| 11 | IT905 | | | 1.41 |
| 12 | Jai BT | | 3.50 | 3.17 |
| 13 | Desi | | | 1.32 |
| 14 | Mist | | | 1.41 |
| 15 | MRC6025 | | 3.03 | 2.15 |
| 16 | OM3 | | 2.00 | 0.85 |
| 17 | Kot 33 | | 0.91 | 0.51 |
| 18 | Moti | | | 0.74 |
| 19 | Ankur2534 | | | 0.64 |
| 20 | Tulsi 45 | | | 0.62 |
| 21 | Others | 25.52 | 2.40 | 2.65 |
| | Overall | 100.00 | 100.00 | 100.00 |

The farmer is free to make a choice of varieties for his field. A few Bt strains provided by PAU along with a large number of trade names claimed by the private companies and dealers to be appropriate for specific crop locations created confusion to the farmers in making choice of appropriate varieties. Thereafter, the introduction of Bt genes significantly increased the diversity index. However, the cotton crop itself could not stand the test of

time and yield decelerated owing to excessive rains and severe attack of mealy bug, white fly and other sucking pests. However, the menace of mealy bug was overpowered by development of Boll-guard II (BGII) varieties (**Table 5**). Attack of white fly is yet to be addressed, posing problem not only for cotton crop but also the other crops of the area including kinnow fruit plantation.

Table 5: Recently released varieties of cotton by Punjab Agricultural University

| Varieties released | Year of release | Potential yield claimed (in terms of lint kg/ha) |
|------------------------|-----------------|--|
| American cotton | | |
| MRC7031BGII | 2010 | 817 |
| RCH7017BGII | 2010 | 867 |
| ANKUR3028BGII | 2012 | 808 |
| NCS855BGII | 2013 | 808 |
| LH2108 | 2013 | 700 |
| RCH650BGII | 2014 | 792 |
| F2383 | 2015 | 658 |
| F2228 | 2015 | 617 |
| Desi cotton | | |
| PAU626H | 2007 | 817 |
| FDK124 | 2011 | 773 |
| FDK124 | 2011 | 773 |
| FMDH9 | 2014 | 833 |
| LH2076 | 2008 | 650 |
| LH2108 | 2013 | 700 |

3.2 Regression analysis

The impact of varietal diversity (Dt) and intensity of pest attack based on score 10 (Pt) on crop yield (Yt) was estimated through linear regression analysis for period I and period III. Period II was too short to run the analysis. The **Table 6** clearly indicates that in pre-Bt period, the diversification of cotton varietal scenario, leaving decision to the farmers themselves worked in decline of crop yield. Longer spread of crop season appeared to provide the pests to hibernate and grow faster. The intensity of attack

of insect pests and diseases also tended to decrease the cotton yield both inflicting crop yield and accounting for almost 50% yield determining factors. However, the Bt era marked from 2005 onwards indicated that plant protection intensity was the sole determinant of crop yield while the impact of over-diversification of varieties could be rated as random without contributing to the productivity.

It was thus brought out that pre-Bt era observed that the varietal diversity provided spread of growing period, favourable for the pests and thus decelerated the crop

Table 6: Results of Linear Regression analysis

| Statistics | Intercept | Dt | Pt | R ² |
|-------------------|-----------|----------|----------|----------------|
| Period I | | | | |
| Reg. Coefficient | 974.555 | -384.104 | -46.119 | 0.496 |
| SE | 138.623 | 168.827 | 17.261 | |
| t-value | 7.030** | -2.275* | -2.672** | |
| Period III | | | | |
| Reg. Coefficient | 1053.495 | 92.710 | -114.333 | 0.472 |
| SE | 314.393 | 200.075 | 40.516 | |
| t-value | 3.351** | 0.463 | -2.822* | |
| Overall | | | | |
| Reg. Coefficient | 666.274 | 230.793 | -78.876 | 0.441 |
| SE | 122.095 | 79.334 | 19.408 | |
| t-value | 5.457** | 2.909** | -4.064** | |

* Significant at 0.05 level ** Significant at 0.01 level

yield. After the introduction of Bt strains, excess diversity in varieties added to the confusion among farmers and they are still continuing to experiment with the new ones. Appropriateness of strains for each location should be clearly pinpointed by the researchers.

Interestingly, the regression coefficient of Dt for the entire period turned out to be 230.79, contributing positive and significant effect on yield of cotton crop. It appears that varietal diversity could have been much more helpful, provided the care was exercised to mitigate its side effects observed in period I and III.

3.3 Some Policy issues

Cotton crop in this potential belt stands danger of extinction and calls for revival with the help of strong policy measures such as

- (i) Short-listing of area-specific suitable varieties under variable soil, rainfall and cropping system through intensive research and extension efforts. Carrying out varietal trials by the farmers themselves results in wastage of resources.
- (ii) Discouraging paddy crop to check the increasing soil salinization in the area which may otherwise

require intensive soil reclamation measures. It would also be a relevant step to check cotton-pest menace.

- (iii) Through strict legislative measures to check the sale of spurious pesticides, which was reported by some cotton growers.
- (iv) Providing effective price support to cotton to make it remunerative over ecologically unfriendly crops. Even subsidizing farmers in the events of unfavourable weather conditions could help in sustaining the crop.

3.4 Conclusion

The foregoing analysis carried out to study the impact of genetic diversity on cotton yield in Indian Punjab indicates that the potential cotton belt witnessed two phases of genetic diversity i.e. in terms of area coverage by different varieties during pre-Bt period and after the introduction of Bt gene. The pre-Bt era marked the fast eroding crop productivity which could be attributed to serious pest attack further aggravated by increasing genetic diversity. New varieties were short-lived and elongated the crop season and thus encouraged pest hibernation. The Bt period was flooded with highly diverse genetic material, which did not show significant effect in any way. The data pooled for the entire study period including transition phase indicated

positive effect on crop yield. The changing scenario of pests continued to decelerate the crop yield. This compelled the farmers to substitute cotton with paddy, which is obviously ecologically unsustainable in the area. There is a strong need to make all out efforts to arrest this trend through policy measures.

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"I'm convinced that about half of what separates the successful entrepreneurs from the non-successful ones is pure perseverance."

– Steve Jobs

Performance of Area, Production and Productivity of Cashew in India and Kerala

BINU KUMAR. B. J. AND ABDUL SALIM A.

Cashew industry is a prominent agro based, export oriented and traditional industry which provide employment and income for the economic development of Kerala. There are lakhs of workers engaged in the cashew processing industry; about ninety three percent are women workers. The performance of cashew in the international scenario reveals the position with which the cashew holds among the agricultural commodities. India is the first country which commercialized cashew as a horticultural crop. India's raw nut production is not sufficient to sustain the processing capacity established in the country. The low yielding old aged cashew trees are needed to be replaced with cashew grafts of high yielding varieties along with adoption of improved production technologies. Higher productivity as well as production is the urgent need for all the major producers of cashew across the globe. The scrutiny of cashew productivity data in India over the last few years indicated stagnation and there was a wide gap existing between the actual and potential yields. It is essential that India should keep pace and meet the requirement of raw cashew nuts for cashew processing industries and achieve self sufficiency. The present paper examines the performance of cashew sector in terms of area, production and productivity in India and Kerala.

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1.1 Introduction

Cashew industry is one of the traditional industries which is export oriented and generates foreign exchange to build up the share of the gross domestic product of the country. The increase in import of raw cashew shows the lack of availability of raw nuts and the lack of domestic cultivation of cashew especially for generating the employment opportunities in the cashew processing industries. The industry being highly labour intensive is a vital source for domestic employment and it provides employment to large number of people especially to women. Statistics reveals that about 93 percent of workers in the industry are women (GoK, 2017).

Over the past few decades this industry has been showing some rapid and tremendous growth, though unregulated. One of the major constraints of the industry is the perennial shortage of supplies of raw nuts and the precarious dependence on supplies from other countries. India has historical importance in this regard that it is the first country in the world that started the international trade of cashew. Cashew industry in Kerala with respect to the export was 44060 MT in 1990-91 which increased to 68150 MT 2015-16 and the percentage increase during the period was 3.63%. With respect to import, the percentage increase was 11.55 (GoK, 2017).

Large area under cashew is covered with non-descript genetically inferior seedling progenies. Compared to other plantation crops, cashew is still confined mostly to marginal and inferior land in fertility and is considered as a wasteland crop. Moreover, cashew has been considered as 'maintenance free' crop and the recommended package of practices are not followed. All these factors lead to low yield. Production of cashew nut broadly depends on cashew nut area, yield rate, area under fruit bearing trees,

age of plantations and breed of plantations. Government interventions for plantations in wastelands, watershed areas and subsidy support for private plantations were the major reasons for increased area under cashew plantations in India (Balasubramian & Singh, 2002). In the light of escalating demand for cashew, it is necessary to amalgamate the new opportunities available with the development of cashew processing industry. Keeping in view the growing demand for cashew and to meet the challenges of attaining self sufficiency in raw cashew nut production, the revival in the cashew processing industry is needed. In this context, the researchers make an attempt at examining the performance of cashew with the following objectives.

1.2 Objectives

1. To identify the current position of cashew in India and Kerala, and
2. To evaluate the trends in area, production and productivity of cashew in India and Kerala.

1.3 Methodology

The study is based on secondary data. Data were collected from Report of Cashew Export Promotion Council of India, report of the Directorate General of Commercial Intelligence and Statistics Kolkata, the Directorate of the Cashew-nut and Cocoa Development of India, Food and agricultural Organization, Horticultural statistics and other sources. The secondary data collected cover a period of fifty years from 1965 to 2016. The period of study has been divided

into two parts: pre reform (globalization) period (1965-66 to 1989-90) and the post reform (globalization) period (1990-91 to 2015-16) to identify the performance of area, production and productivity of cashew.

1.4 Cashew industry in India

The performance of cashew industry in India with respect to the total area, production and productivity of cashew shows that during 1965-66 the total area of cultivation of cashew nut was 302 thousand hectares, the total production of cashew was about 127 thousand tones and the total productivity of cashew was about 253 kg per hectares. In the successive years, the area, production and productivity of cashew showed an increasing trend and it increased to 1011 thousand hectares, 743 thousand tones and 756 kg per hectares respectively in 2015-16. It shows that the area increased by 2.34 times compared with 1975-76, production increased by 3.46 times and productivity by 2.62 times in India (FAO, 2016).

1.4.1 Area of Cultivation of Cashew during Pre and Post Globalisation Period in India

The area of cultivation of cashew in India was 302 thousand hectares in 1965/66 and the increase was 24.17% in the next five years. The successive periods have witnessed an increasing trend. The compound annual growth rate of area of cultivation of cashew during this period was 2.51%. Thus it can be inferred that during the pre- reform period, the area of cultivation was slightly

Table 1: Area of Cultivation of Cashew during Pre and Post Globalisation Period in India (1965-66 to 2015-16)

| Pre globalisation | | | Post globalisation | | |
|-------------------|---------------|---------------------------|--------------------|---------------|---------------------------|
| Year | Area (000ha) | % Change to Previous Year | Year | Area (000ha) | % Change to Previous Year |
| 1965-66 | 302 | - | 1990-91 | 532 | -5.17 |
| 1970-71 | 375 | 24.17 | 1995-96 | 635 | 19.36 |
| 1975-76 | 432 | 15.20 | 2000-01 | 720 | 13.38 |
| 1980-81 | 502 | 16.20 | 2005-06 | 837 | 16.25 |
| 1985-86 | 562 | 11.59 | 2010-11 | 945 | 12.90 |
| 1989-90 | 561 | -0.18 | 2015-16 | 1011 | 6.98 |
| CAGR | 2.51% | | CAGR | 2.60% | |

Source: Cashew Export Promotion Council of India, 2016

increasing. Similarly during 2000/01- 2015/16, the area of cultivation of cashew showed increasing trend from 720 thousand hectares to 1011 thousand hectares. The compound annual growth rate of area of cultivation of cashew during this period was 2.60%. Thus the area of cultivation of cashew was increasing both in pre-reform and post reform periods (Table 1).

1.4.2 Production of Cashew Nut during Pre and Post Globalisation Period in India

The production of cashew nut in India was 127 thousand tons in 1965-66 and in 1989-90 it increased to 334 thousand

tones. The compound annual growth rate of production of cashew during this period was 4.08%. However the reform year 1990-91 witnessed a fall in the production of cashew in India to 295 thousand tonnes; but it rose to 418 thousand tonnes in 1995-96 to 743 thousand tonnes in 2015-16; the percentage increase was 13.78 during the reform period. The compound annual growth rate of production of cashew during this period shows an increasing trend of 3.76% compared with pre globalisation period. Thus in general, the production of cashew nut was increasing during the post globalisation period (Table 2).

Table 2: Production of Cashew Nut during Pre and Post Globalisation Period in India (1965-66 to 2015-16)

| Pre globalisation | | | Post globalisation | | |
|-------------------|------------------|---------------------------|--------------------|------------------|---------------------------|
| Year | Area (000tonnes) | % Change to Previous Year | Year | Area (000tonnes) | % Change to Previous Year |
| 1965-66 | 127 | - | 1990-91 | 295 | -11.68 |
| 1970-71 | 162 | 27.55 | 1995-96 | 418 | 41.69 |
| 1975-76 | 215 | 32.72 | 2000-01 | 450 | 7.66 |
| 1980-81 | 223 | 3.72 | 2005-06 | 573 | 27.33 |
| 1985-86 | 295 | 32.29 | 2010-11 | 653 | 13.96 |
| 1989-90 | 334 | 13.22 | 2015-16 | 743 | 13.78 |
| CAGR | 4.08% | | CAGR | 3.76% | |

Source: Cashew Export Promotion Council of India, 2016

Table 3: Productivity of Cashew Nut during Pre and Post Globalisation Period in India (1965-66 to 2015-16)

| Pre globalisation | | | Post globalisation | | |
|-------------------|-------------------------|---------------------------|--------------------|-------------------------|---------------------------|
| Year | Productivity (Kg/000ha) | % Change to Previous Year | Year | Productivity (Kg/000ha) | % Change to Previous Year |
| 1965-66 | 253 | - | 1990-91 | 636 | 19.10 |
| 1970-71 | 261 | 3.16 | 1995-96 | 862 | 35.53 |
| 1975-76 | 289 | 10.73 | 2000-01 | 710 | -17.63 |
| 1980-81 | 308 | 6.57 | 2005-06 | 815 | 14.88 |
| 1985-86 | 510 | 65.58 | 2010-11 | 720 | -11.66 |
| 1989-90 | 534 | 4.70 | 2015-16 | 756 | 5 |
| CAGR | 3.03% | | CAGR | 0.69% | |

Source: Cashew Export Promotion Council of India, 2016

1.4.3 Productivity of Cashew Nut during Pre and Post Globalisation Period in India

The productivity of cashew in 1965-66 was 253 kg/ hectares which rose to 756 kg/ hectares and the percentage increase was 3.16% in 2015-16. After 1980-81 to 1989-90 the productivity of cashew revealed an increasing trend from 308 kg/ hectares to 534 kg/ hectares and the percentage increase was only 4.70%. The compound annual growth rate of productivity of cashew during this period was 3.03%. Table 3. reveals that during pre reform period the productivity of cashew was fluctuating. The same was the case with post globalisation period. However in the reform period, the productivity slightly improved from 636 kg per hectares to 756 kg per hectares. The compound annual growth rate of productivity of cashew during this period was 0.69% (Table 3). Thus it can be summarized that during the reform period the productivity of cashew nut shows a fluctuating trend.

1.5 Performance of Area, Production and Productivity of Cashew in Kerala

The performance of cashew processing industry in Kerala showed that the area, production and productivity decreased especially after the reform period. The reforms and consequent policies changed the employment pattern of the society and the role of traditional industries decreased because of high preference of the white color and new generation jobs. The entrepreneurs and industrialists stick on to the most profitable sectors for investment, so the traditional industries like cashew industries are under a threat of collapse. The trend in area of cultivation of cashew in Kerala was decreasing mainly due to the shift from cashew cultivation to more lucrative crops like rubber (Bhat & Rupa, 2010). The Government of Kerala had brought the Land Reforms Act in 1969; Cashew was taken away from the plantation status while Rubber, Tea, Coffee and Cardamom were given the plantation status. Before the act came into force, existing cashew plantations were converted into rubber plantations. Since Kerala had a monopoly of the cashew crop, the Land Reforms Act and similar acts in other states simultaneously affected the indigenous production of cashew nuts. The production and productivity of cashew in Kerala shows a decreasing trend because of the lack of high yielding crops, increase in the age of cashew trees and improper weather conditions.

In the post globalisation period too, the area, production and productivity of cashew in Kerala shows a decreasing trend. The mean production of cashew differs significantly before and after the globalization period. In the pre globalization period there was an increase in the production of cashew with a mean score of 121.71 thousand tones, while in the post globalization period it was only 98.06 thousand tones. The mean productivity of cashew does not differ significantly before and after the globalization periods. The fall in the area of cultivation of cashew in the post globalisation period was mainly because of the increase in the rubber cultivation and tremendous shift to Rubber cultivation.

At present in Kerala, cashew is grown mostly in areas unsuited for cultivation of crops such as rubber and coconut. Cashew trees tend to be grown on marginal and less fertile land and may continue to produce for many years without the intensive inputs and labour which other crops require. For farmers in Kerala, cashew constitutes only a supplementary source of income. The production of cashew nut in the post globalisation period shows a deteriorating trend. Some reasons for the decline of cashew production in Kerala include the pronounced seasonality of the cashew production cycle, high sensitivity of yield to weather conditions, unattractive prices, and land ceilings for cashew plantations, senility of the trees and the non-agricultural orientation of landowners (Banker & Shanker, 2003). But there have been little research into the extent to which these reasons, or a combination of these reasons, have led to a decline in Kerala's relative share in the production of raw nuts. During the pre and post globalisation period of cashew with respect to the above mentioned variables of cashew differ significantly.

1.5.1 Area of Cultivation of Cashew during Pre and Post Globalisation Period in Kerala

The area of cultivation of cashew plants in the pre globalisation period rose to 50 percent, the compound annual growth rate being 2.0%. But in the post globalisation period, the area declined by 50 percent to 84.53 thousand hectares, the compound annual growth rate of area of cultivation of cashew during this period decreased to -2.41 %. Thus in Kerala, the cashew cultivation in the reform period shows a deteriorating trend. The major factors attributed to this fall include the paradigm shift in the agricultural pattern of the farmers, lack of benefits, and volatility nature of cashew nut price. A further disaggregation of the performance statistics is given in Table 4.

Table 4: Area of Cultivation of Cashew during Pre and Post Globalisation Period in Kerala (1965-66 to 2015-16)

| Pre globalisation | | | Post globalisation | | |
|-------------------|---------------|---------------------------|--------------------|---------------|---------------------------|
| Year | Area (000ha) | % Change to Previous Year | Year | Area (000ha) | % Change to Previous Year |
| 1965-66 | 94.72 | - | 1990-91 | 155.50 | 0.06 |
| 1970-71 | 103.61 | 9.39 | 1995-96 | 118.60 | -23.73 |
| 1975-76 | 112.90 | 8.96 | 2000-01 | 122.00 | 2.87 |
| 1980-81 | 145.20 | 28.61 | 2005-06 | 80.00 | -34.43 |
| 1985-86 | 154.10 | 6.13 | 2010-11 | 78.00 | -2.50 |
| 1989-90 | 155.40 | 0.84 | 2015-16 | 84.53 | 8.37 |
| CAGR | 2.0% | | CAGR | -2.41% | |

Source: Directorate of Cashew nut and Cocoa Development, 2016

1.5.2 Production of Cashew Nut during Pre and Post Globalisation Period in Kerala

The production of cashew nut rose from 95.3 thousand tonnes in 1965-66 to 139.5 thousand tonnes in 1989-90 and declined to 80 thousand tonnes in 2015-16, a decline of almost 50 percent in the reform period. The compound

annual growth rate of production of cashew during this period was 1.54 % in the pre reform period and a severe decline of 2.27 percent in the reform period. The factors contributing to this fall in production are lack of high yielding variety of cashew plants, very old trees and the changes in the weather conditions (Table.5).

Table 5 Production of Cashew Nut during Pre and Post Globalisation Period in Kerala (1965-66 to 2015-16)

| Pre globalisation | | | Post globalisation | | |
|-------------------|-------------------------|---------------------------|--------------------|-------------------------|---------------------------|
| Year | Production (000 tonnes) | % Change to Previous Year | Year | Production (000 tonnes) | % Change to Previous Year |
| 1965-66 | 95.30 | - | 1990-91 | 142.1 | 1.86 |
| 1970-71 | 100.20 | 5.14 | 1995-96 | 140.0 | -1.47 |
| 1975-76 | 107.20 | 6.98 | 2000-01 | 76.00 | -45.71 |
| 1980-81 | 117.00 | 9.14 | 2005-06 | 67.00 | -11.84 |
| 1985-86 | 128.90 | 10.17 | 2010-11 | 71.00 | 5.97 |
| 1989-90 | 139.50 | 8.22 | 2015-16 | 80.00 | 12.67 |
| CAGR | 1.54% | | CAGR | -2.27% | |

Source: Directorate of Cashew nut and Cocoa Development, 2016

1.5.3 Productivity of Cashew Nut during Pre and Post Globalisation Period in Kerala

In the pre globalisation period productivity of cashew declined slightly during 1965-66 to 1990-91; then in the post globalisation period, there was a mild improvement

in productivity from 925 kg per hectares in 1990-91 to 946 kg per hectares in 2015-16. The compound annual growth rate of productivity of cashew during this period was only 0.09% (Table 6). Thus during the post reform period the productivity of cashew nut was overall hopeful.

Table 6: Productivity of Cashew Nut during Pre and Post Globalisation Period in Kerala (1965-66 to 2015-16)

| Pre globalisation | | | Post globalisation | | |
|-------------------|-------------------------|---------------------------|--------------------|-------------------------|---------------------------|
| Year | Productivity (kg/000ha) | % Change to Previous Year | Year | Productivity (kg/000ha) | % Change to Previous Year |
| 1965-66 | 956 | - | 1990-91 | 925 | 0 |
| 1970-71 | 965 | 0.94 | 1995-96 | 1000 | 8.11 |
| 1975-76 | 971 | 0.62 | 2000-01 | 765 | -23.5 |
| 1980-81 | 967 | -0.41 | 2005-06 | 900 | 17.65 |
| 1985-86 | 956 | -1.14 | 2010-11 | 947 | 5.22 |
| 1989-90 | 925 | -3.24 | 2015-16 | 946 | -0.11 |
| CAGR | -0.13% | | CAGR | 0.09% | |

Source: Directorate of Cashew nut and Cocoa Development, 2016

1.6 Area, Production and Productivity of Cashew in India and Kerala: Pre and post Globalisation

The Government of India introduced a large number of innovative promotional measures to uplift the growth of traditional industries. Cashew is an agro based industry which provides foreign exchange for the economic development of our country. As a traditional industry, cashew leads to a greater utilization of natural resources, production of goods and services, creation of employment

opportunities and improvement in the general standard of living (Ratheesh, 2005). The relevance of cashew industry is analyzed through the area, production and productivity. The independent sample t- test was used to find out the relevance of cashew industry in India and Kerala (Table 7). With respect to area of cashew in India, the t test indicates that difference in area of cultivation during pre and post globalization period is significant at 0.01 with t value of 6.11.

Table 7: Area, Production and Productivity of Cashew in India and Kerala: Pre and post Globalisation

| Indicators | Period | India | | | Kerala | | |
|---------------------|-------------------------------|--------|---------|--------------|--------|---------|--------------|
| | | Mean | t-value | Significance | Mean | t-value | Significance |
| Area | Pre Globalization (25 years) | 516.27 | 6.11 | 0.01 | 144.39 | 4.478 | 0.01 |
| | Post Globalization (25 years) | 771.16 | | | 108.18 | | |
| Production | Pre Globalization (25 years) | 257.53 | 6.68 | 0.01 | 121.71 | 2.96 | 0.01 |
| | Post Globalization (25 years) | 542.12 | | | 98.06 | | |
| Productivity | Pre Globalization (25 years) | 410.13 | 11.4 | 0.01 | 958.93 | 1.59 | 0.01 |
| | Post Globalization (25 years) | 753.00 | | | 922.96 | | |

Source: Estimate from secondary data, 1965-66 to 2015-16

The mean score indicates that post globalization period has witnessed an increase in area of cultivation of cashew in India with a mean score of 771.16 thousand hectares, while that of pre globalization period is only

516.27 thousand hectares. While in Kerala, there was a significant decrease in area of cultivation during post globalization period. The average area of cashew cultivation decreased to 108.18 thousand hectares during

post reform period from 144.39 thousand hectares during pre reform period.

With respect to production in India, there is considerable increase in the production after economic reform. The increase is significant at 0.01 with t-value of 6.68. The mean score indicates that post globalization period witnessed an increase in production of cashew with a mean score of 542.12 thousand tones as compared to that of only 257.53 thousand tones during the pre globalization period. While in Kerala, production of cashew significantly decreased after the economic reform and its all India share further declined. As far as the productivity of cashew is concerned, the same trend is seen as in the case of area and production of cashew. In India, productivity of cashew increased significantly while in Kerala it decreased considerably after reform. During the pre reform period, average productivity of cashew in India was 410.13 kg per thousand hectores which increased to 753.00 kg per hectares. But in the case of Kerala, average productivity of cashew during pre reform period was 958.93 kg per hectares which declined to 922.96 kg per hectares.

1.6.1 Reasons for Declining Trends in Cashew production

India is largest producer of raw cashew nuts in the world and its production increased from 6.92 lakh MT in 2011-12 to 7.28 lakh MT in 2012-13 while the area under cashew cultivation declined to 9.91 lakh hectares in 2011-12 and to 9.82 lakh hectares in 2012-13. Kerala had been at the top in production of cashew nuts in the early 90s, but gradually dropped to the 4th position after Maharashtra, Andhra Pradesh, and Orissa. In Kerala there has been a continuous and considerable decline in both area under cultivation and production of cashew for the last one decade. Interestingly, area and production are increasing steadily in other producing states in the country. The area under cashew cultivation and yield per acre has been decreasing in Kerala mainly due to the replacement of cashew with remunerative crops like rubber and rapid urbanization (Pillai, 1996).

Despite most processing factories being located in south Kerala, most cashews is grown in the northern districts, especially Kannur and Kasaragod, where the biophysical conditions are particularly suitable. North Kerala is known for the high productivity (590 kg per acre) and quality of the nuts it produces. Yet despite favorable biophysical conditions, Kerala farmers have not engaged in intensive cultivation practices although the reasons for

this are unclear (Ratheesh, 2005). Many farmers, especially in the southern districts, have switched from growing cashew to other more lucrative crops, such as rubber. Thus, the relatively low value of cashew has been an important reason for its decline in Kerala. The production and area of cultivation of rubber rapidly increased during the last few decades (Varmudy, 2011).

The decline in area in Kerala is mainly attributed to the pressure on land and the existing land ceiling laws and the continued denial of plantation status to cashew. Besides, the lack of enthusiasm on the part of the implementing agencies, especially the State agriculture department, is said to be a reason for the decline. On the other hand, Kerala has vast areas of cashew plantations which have not been replanted. As a result, the production has also dropped. A major reason for the unpredictability of cashew cultivation is the fact that nearly 70 percent of the cashew trees in the state are aged, local varieties, which start yielding late in the season. Climate change also affects cashew cultivation. Coincidence of excessive rainfall and high relative humidity with flowering may result in flower or fruit drop and heavy incidence of fungal disease (Eapen & Kanji, 2004). Other reasons include pronounced seasonality of the cashew production cycle, unattractive prices, land ceiling for cashew plantations, the non-agricultural orientation of landowners and the senility of the trees. Some of these reasons, or a combination of all reasons, has led to a decline in Kerala's relative share in the production of raw nut. Shift to more profitable cash crops - mainly rubber - has brought down the area under cashew cultivation in Kerala. Unlike rubber; cashew is not treated as a plantation crop. If it were given plantation status, there would be farmers reverting or switching over to cashew given low prices of late of natural rubber, according to a farmer who has shifted to cashew from rubber. The investment in raising a cashew plantation was comparatively much less while the return is remunerative. Because of the pressure on land, wasteland could be used for cashew planting (Senthil & Mahesh, 2013). Not only that due to the absence of high yielding varieties and multiplication techniques, seeds and seedlings were used for plantation development in an unscientific manner.

Conclusion

At an all India level, the area of cultivation of cashew, and productivity during the post globalisation period show significant increase compared to the pre globalisation

period. But, in Kerala, the performance of cashew processing industry in terms of area, production and productivity show a decreasing trend especially after the reform period. The reforms and consequent policies shift the employment pattern of the society and the role of traditional industries decrease and the white colour and new generation jobs got high preference. The entrepreneurs and industrialists stick on to the most profitable sectors for investment; so the traditional industries like cashew industries are under a threat of collapse. The main reason for the decrease in the area of cultivation of cashew is the shift from cashew cultivation to more lucrative crops like rubber. The Government of Kerala had brought the Land Reforms Act in which Cashew was taken away from the plantation status while Rubber, Tea, Coffee and Cardamom were given the plantation status. Before the act came into force, existing cashew plantations were converted into rubber plantations. Since Kerala had a monopoly of the cashew crop, the Land Reforms Act and similar acts in other states simultaneously affect the indigenous production of cashew nuts. Similarly the reasons for the decline in the production and productivity of cashew in Kerala are the lack of high yielding crops, increase in the age of cashew trees and improper weather conditions.

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"When everything seems to be going against you, remember that the airplane takes off against the wind, not with it."

– Henry Ford

Structural Change in Employment Pattern in Odisha: An Analysis in the Post Reform Period

PRIYABRATA SAHOO AND RANJAN KUMAR NAYAK

This paper is an attempt to look into the structural transformation in Odisha economy by looking at the pattern and nature of employment in the post reform period. The unit level data of employment-unemployment survey (EUS) and the EUS reports have been used for calculation of employment figures. The primary sector income share has been declining at a faster rate than the decline in the employment share. The tertiary sector recorded a faster growth in income and increase in income share though the labour absorbing capacity of this sector is low. Hence instead of having high growth in Odisha, as referred to in many literatures, the structural transformation in the economy is a stunted one. In terms of employment growth, the self-employment category has seen a faster rise during the post reform. Class wise (decile) analysis shows that, it's the casual labour, that is more deprived.

I. Introduction

Growth is a necessary and essential condition for economic development. Odisha is having vast natural resources and has the potential for higher economic growth. The state occupies 4.7 percent of the country's total geographical area, 7 percent of the forest coverage, 10 percent of the water resources and 20 percent of the mineral reserves of the country. Despite having huge natural resources, Odisha has been considered as a backward state for decades. Odisha's annual per capita income for the fiscal year 2012-13 was estimated to be Rs. 24,928 in comparison to the all-India average of Rs. 39,904, way below the national average. Odisha economy lags behind the national average in terms of both level and growth of Net State Domestic Product (NSDP). Rajan Committee Report in 2013 had ranked Odisha as the least developed state in India on its index of economic development (Government of India, 2013). According to the reports of the committee, Odisha, with a score of 0.80, tops in the underdevelopment index section. From all the above facts it can be derived that Odisha lags behind both in income and non-income indicators over the year.

While some of the recent literature observed that the relative economic position of Odisha has improved. Samantaray, A. and *et al.* (2014) took both the income and non-income indicators (literacy rate, infant mortality rate & maternal mortality rate) to show the improved economic position of Odisha. Panda (2015) has shown in his paper that Odisha has achieved a higher growth rate in the 2000's especially after 2004-05, with a faster reduction in poverty and inequality. The India Today group in association with the Institute of Human Development (IHD), New Delhi assessed the state's thirty districts over two decade on ten indicators. To them Odisha has transformed from a poverty stricken state to front-runner

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for social-economic development (India Today, 2017). The above literature mentioned that Odisha has recorded a high growth rate in the recent past and its relative economic position has improved. If it is true, it became important to know whether there is a major structural transformation in output and employment in the state. The paper consists of 6 sections. After providing an introduction in section 1, the section 2 discusses the data and methodology used in this paper. Section 3 presents the nature and type of employment in Odisha. Section 4 explains the quintile wise distribution of employment in Odisha followed by a concluding remark in section 5.

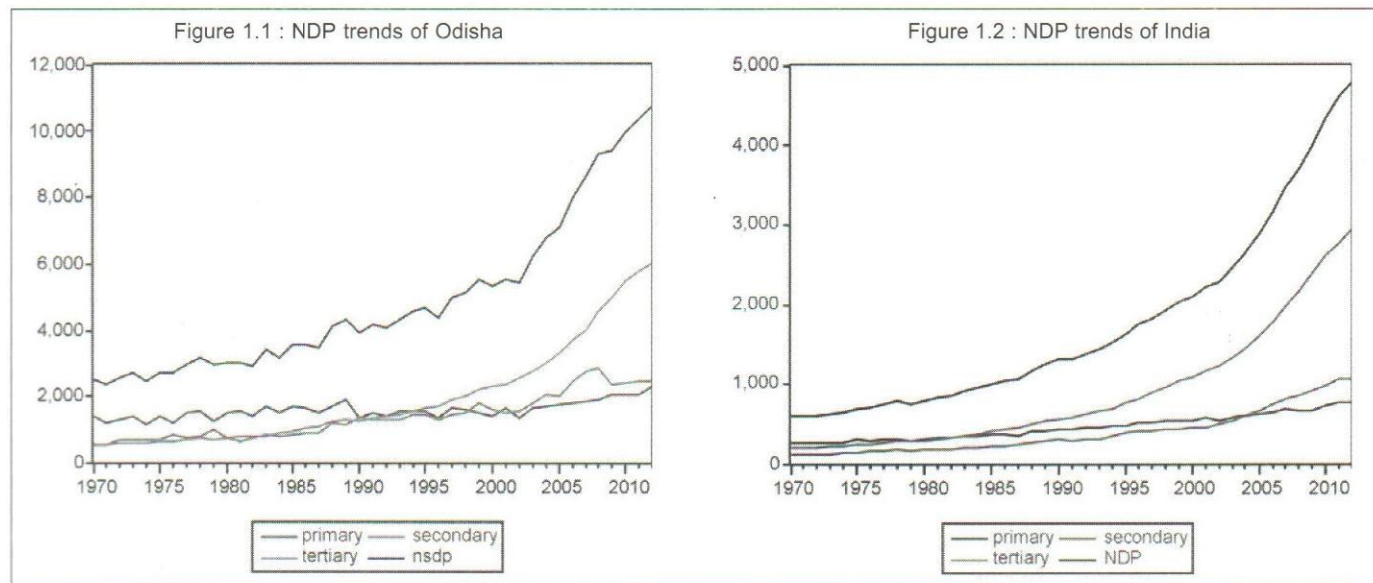
2. Structural Transformation in Odisha

The structural changes have been taking place with the falling share of income and employment in the primary sector and an increasing share of the secondary and tertiary sector. India has witnessed a higher growth rate in the post-reform period as a result of faster growth in the tertiary sector (Eichengreen and Gupta, 2011; Pais, 2014). With high growth, the primary sector witnessed a decline in the share of output while the tertiary sector has recorded faster increase in its share and the industrial sector remained stagnant regarding both the share of income and employment over decades in India (Papola, 2006; Mazumdar, 2011). Looking into the employment share, still, more than 50 percent of the population of India depends on the primary sector whereas the sector has seen a faster decline in output share in the post-reform period. While the tertiary sector witnessed an increasing

share of income while the labour-absorbing capacity of this sector remains low. The secondary sector's share of income and employment has remained stagnant since decades showing a stunted structural transformation in India (Binswanger; 2013).

The post-reform period recorded a faster growth in Odisha. Is there any change in the sectoral composition of output and employment in the state of Odisha among the sectors. Nayak & Pattanaik (2011) in their paper mentioned that in the post-reform period Odisha witnesses a faster reduction in the share of income of the primary sector and a faster rise in the share of income of the tertiary sector while keeping the share of secondary sector constant. The labour-absorbing capacity of secondary and tertiary sectors is low. The primary sector continues to remain the mainstay of the states. As we know with the growth of an economy the output and employment figures in absolute terms for all the sectors witness a rising trends whereas the share (relative position of the sector) might witness a fall or rise. As mentioned in the several literatures, Odisha achieved a higher growth rate in the post reform period. Hence the question which comes forward, does Odisha witness the same trends as the national level? If it has recorded a higher growth, has there been any structural transformation in terms of output and employment in the state among the sectors.

Figures-1.1 & 1.2 presents the sectoral trends of NSDP of Odisha and India. From figure-1.1 it can be seen that the primary sector income for Odisha is higher over



Source: CSO, National Accounts Statistics, GOI.

Figure 1: Sectoral trends of NDP of Odisha (In Thousand) and All India (In Lakhs).

the secondary and tertiary sector up to 1990-91. It implies that the primary sector remains a major source of income of Odisha up to 1990's. It is only after 1994-95, the tertiary sector income crosses the primary sector that witnesses a slowdown. It is after 2002-03 the tertiary sector witnessed a faster rise resulting in increase in NSDP of Odisha. In case of all-India, the tertiary sector witnessed a rising trend way back in the 1980's while for Odisha it is around 1990's. Both in Odisha and India it's the tertiary sector, which remains the major driver of the total output over the year.

Agriculture remains the prime contributor of the primary sector though its share has been declined over year. The major increase in income share of the secondary sector in Odisha happens in 1990's due to higher growth of mining as there is huge flow of FDI to mining sectors of Odisha (Das; 2016). Among the secondary sector construction, manufacturing and mining contributions are larger. The mining sector has witnessed the highest increase in income share among the secondary sector. The income share of the construction sectors even dominates the manufacturing sectors in Odisha. Though the income share of the secondary sector rises in 1990's again it witnessed falling trends. It is the trade-hotel-restaurants, transport-storage-communication and the other services, which contributed more to the tertiary sector. The sector emerges as the fastest growing sub-sectors among the tertiary sector are banking and insurance sub-sectors. The major rise in income in the tertiary sector happens after post reform.

Very few study have attempted to look into the sectoral growth rate of Odisha over time. The long-run growth rate of the Odisha economy during the period 1950-51 to 1997-98 is around 2.7% (Meher, 2003). According to him, the slowdown in growth rate of the economy is due to the slower growth of the agricultural sector as it constitutes a major share of the income in the economy. The decade of 1990's saw a slowdown in the agriculture growth in Odisha (Pattanaik, 2010) and acceleration in mining output growth (Das & Acharya, 2016) in the state. The reason for slow growth in agriculture was because of the shift in the focus of the Government of Odisha from agriculture towards mining due to the huge demand for iron ore by China and the demand for coal for the power sector. Odisha is one of the forerunners to bring the power sector reform in the state. The period after 2002-03 has seen a revival of agriculture growth (Pattanaik, 2010) and the overall growth in output (Panda, 2015). All the above

literature opined that though the state witnessed a lower growth rate for decades, it's after 2000's the state recorded a higher growth in income. If it is true, it will be of interest to know is there a structural transformation in employment in Odisha?

3. Nature and Trends of Employment in Odisha

The sectoral share of employment along with income over time will provide us a picture in which direction the economy is moving? As previously mentioned one of the main objective of inclusive growth is to provide opportunities and hence creation of both quantitative as well qualitative employment with high growth in income. **Table 1** presents the sectoral share of employment in rural and urban Odisha and India in terms of the Usual Principal Subsidiary Status (UPSS) for the post-reform period. The data is collected from Employment Unemployment Survey (EUS) quinquennial reports prepared in each five year by NSSO. Due to lack of availability of employment data, I have considered four quinquennial rounds for our estimation. The 1993-94 (50th), 1999-00 (55th), 2004-05 (61st), and 2011-12 (68th) round reports of NSSO has been taken for this purpose. As the report does not have rural and urban classification of employment –unemployment data and does not provide the total employment scenario, the same classification has been considered here.

The share of employment in rural Odisha and rural India are more or less remain same while the urban areas of Odisha and India seen a different share among the sector. While the primary sector witnessed a decline in employment share, there is an increase in share of secondary and tertiary sector. The changes are, however, faster in the decade of 2000's. A large mass of the population still depends on primary sector for their livelihood. In Odisha around 65% of the total population is employed in primary sector in 2004-05, which has declined to 57% in 2011-12. While for the all India, the figure has declined from 58.5% to 49%. Among the secondary sectors in Odisha, it is the manufacturing and construction sectors, which have seen a high rise in the employment share. Though the mining sector has recorded a high growth in NSDP during the 1990's period, its employment share has declined and its share in overall employment is meager, less than 1 percent. The employment share of the secondary sector increases faster than the tertiary sector. Hence though there is a high growth rate in output in the tertiary sector in terms of employment generation its lag behind. In Urban Odisha,

Table 1: Sectoral share of employment in rural and urban Odisha and India

| UPSS | Rural Odisha | | | Urban Odisha | | |
|--------------|--------------|-----------|----------|--------------|-----------|----------|
| Sector/ Year | PRIMARY | SECONDARY | TERTIARY | PRIMARY | SECONDARY | TERTIARY |
| 1993-94 | 80.90 | 9.40 | 9.80 | 15.70 | 26.40 | 57.70 |
| 1999-00 | 78.20 | 11.90 | 9.90 | 13.00 | 32.00 | 55.00 |
| 2004-05 | 69.00 | 17.50 | 13.60 | 13.90 | 26.60 | 59.40 |
| 2011-12 | 62.25 | 22.64 | 15.13 | 14.10 | 23.11 | 62.80 |
| UPSS | Rural India | | | Urban India | | |
| 1993-94 | 78.40 | 10.20 | 11.40 | 12.30 | 32.10 | 55.50 |
| 1999-00 | 76.30 | 11.40 | 12.40 | 8.80 | 32.20 | 59.20 |
| 2004-05 | 72.70 | 13.70 | 13.60 | 8.80 | 34.10 | 57.20 |
| 2011-12 | 64.10 | 20.39 | 15.51 | 6.69 | 34.99 | 58.33 |

Source : Taken from NSSO EUS various Reports

employment generation in the secondary and tertiary sector is higher than primary sector. A comparison between urban India and urban Odisha shows that the employment share for primary and tertiary sectors are higher and the secondary sector has lower employment share. It implies that though there is industrial growth in the state, it has confined to the rural Odisha where there is a rise in employment share of this sector.

As 85% of population of the state lives in rural areas, the rural share of employment plays a vital role for the inclusive growth of the state. In a state like Odisha, which has slow urbanisation process, the employment creation in rural economy plays a vital role for the inclusive growth. Still around 60% of the population depends on the farm sector in Odisha though its share of income has declined

drastically to 15% implying the importance of farm sector in Odisha.

Table 2 presents the labour force participation rate (LFPR) of Odisha and India for rural and urban areas. The LFPR of Odisha is higher than the national level and rural LFPR is higher than the urban areas. The LFPR for males is higher than females. The LFPR for the male in rural and urban areas remain same whereas the female LFPR is higher in rural areas than the urban counterpart. In Odisha the 1st period seen an increase in the LFPR both in rural and urban areas among the male and female. Whereas it has declined in the 2nd period. But the growth has seen a reverse trends. The 2nd period witness a faster growth in income while the 1st period witness a slow growth rate. This implies that Odisha witness a jobless growth scenario in the 2nd period.

Table 2: Labour force participation rate in Odisha and India

| Odisha/India | Rural Odisha | | | Urban Odisha | | | Rural India | | | Urban India | | |
|--------------|--------------|--------|-------|--------------|--------|-------|-------------|--------|-------|-------------|--------|-------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 1993-94 | 577 | 319 | 449 | 546 | 161 | 365 | 561 | 330 | 449 | 543 | 165 | 363 |
| 2004-05 | 604 | 351 | 476 | 553 | 202 | 386 | 555 | 333 | 446 | 570 | 178 | 382 |
| 2011-12 | 606 | 251 | 427 | 603 | 158 | 395 | 553 | 253 | 406 | 563 | 155 | 367 |

Source : Taken from NSSO EUS Reports

Table 3: LFPR among the Household Type in Odisha.

| HH TYPE | Male | | | Female | | | Total | | |
|--------------|---------------|------------------|---------------|---------------|------------------|---------------|---------------|------------------|---------------|
| | Self Employed | Regular Employed | Casual Labour | Self Employed | Regular Employed | Casual Labour | Self Employed | Regular Employed | Casual Labour |
| Rural Odisha | | | | | | | | | |
| 1993-94 | 566 | 62 | 372 | 562 | 13 | 425 | 564 | 45 | 391 |
| 2004-05 | 564 | 75 | 361 | 619 | 21 | 359 | 584 | 56 | 360 |
| 2011-12 | 606 | 83 | 311 | 659 | 33 | 305 | 624 | 67 | 309 |
| Urban | | | | | | | | | |
| 1993-94 | 371 | 481 | 148 | 377 | 291 | 332 | 372 | 443 | 185 |
| 2004-05 | 462 | 357 | 181 | 379 | 352 | 269 | 444 | 356 | 200 |
| 2011-12 | 496 | 364 | 140 | 581 | 271 | 148 | 512 | 346 | 142 |

Source : Taken from NSSO EUS Reports

It's the quality of employment which matter for inclusive growth. **Table 3** presents the type of employment in rural and urban Odisha in different time period in the post reform era. The share of regular employed in rural Odisha is very low whereas it's self-employed and casual labour which constitute the major share of the employment in rural Odisha. Whereas self-employed and regular employed constitute a major share of employed people in urban Odisha. The 1st period witnessed a rise in self-employed both in rural and urban Odisha. But casual labour declined in rural areas and increased in the urban areas. The regular employed constitute very less portion of the rural employment and hence its rise does not impact the economy much. While the urban Odisha has seen a decline in regular employed people. While the 2nd period witness a fall in the casual labour and rise in self-employed. It seems the Odisha economy is driven by the self-employed.

4. Quintile wise Distribution of Employment in Odisha

The main aim of inclusive growth is creation of opportunities and it should be available to all section of the society. Table 4 presents sectoral composition of employment among the income group. It does not give any information on the type of employment and their distribution among the classes. For growth to be inclusive it is also important to know whether the lower strata in the income groups are getting quality employment. **Tables 4, 5 and 6** present class-wise distribution of household types in both rural

and urban Odisha.

Table 4 provides the class wise and sectoral analysis of employment in Odisha. The data has been derived from the unit level employment unemployment survey of NSSO 2011-12 (68th) round. The National Industrial Classification (NIC) is used for classifying the sectors into primary, secondary and tertiary. In the rural Odisha in 1st decile around 62% , 31% and 7% of the population depends on the primary, secondary and tertiary sector where in the 10th decile 38% , 19% and 43% of the population depends on the primary, secondary and tertiary sector. It shows the higher decile income group mainly depends on the tertiary sector while the lowest decile depends on the primary and secondary sector for livelihood. In urban areas, dependence on the primary sector is too low whereas the dependence on tertiary sector is high among all the income groups. But with increase in income the percentage of population dependence on primary and secondary has declined whereas the dependence on the tertiary sector is increasing.

On an average 50% of the total population depends on the primary sector while 22% on the secondary and 28% on the tertiary sector of Odisha. But the class wise distribution of employment shows that the lower strata population is more employed in primary and secondary while the upper strata mostly depends on the tertiary sector. Though income from primary sector has declined drastically

Table 4: Decile wise distribution of sectoral employment in Odisha for the year 2011-12

| Decile Group | Rural | | | Urban | | | Total | | |
|--------------|--------------|--------------|--------------|-------------|--------------|--------------|--------------|--------------|--------------|
| | Primary | Secondary | Tertiary | Primary | Secondary | Tertiary | Primary | Secondary | Tertiary |
| 1 | 61.95 | 31.46 | 6.59 | 17.99 | 33.40 | 48.61 | 55.17 | 31.76 | 13.07 |
| 2 | 69.95 | 20.71 | 9.34 | 17.07 | 22.20 | 60.73 | 60.83 | 20.96 | 18.21 |
| 3 | 66.07 | 22.80 | 11.13 | 5.49 | 18.28 | 76.22 | 55.77 | 22.03 | 22.20 |
| 4 | 56.00 | 27.21 | 16.79 | 25.40 | 17.91 | 56.70 | 51.22 | 25.76 | 23.02 |
| 5 | 58.96 | 20.61 | 20.43 | 23.36 | 10.83 | 65.80 | 53.06 | 18.99 | 27.95 |
| 6 | 61.67 | 22.01 | 16.32 | 3.15 | 25.11 | 71.74 | 52.85 | 22.48 | 24.67 |
| 7 | 54.42 | 22.59 | 23.00 | 1.15 | 17.21 | 81.64 | 45.26 | 21.66 | 33.07 |
| 8 | 53.38 | 23.57 | 23.04 | 0.21 | 27.18 | 72.60 | 44.83 | 24.15 | 31.02 |
| 9 | 50.69 | 19.95 | 29.36 | 0.00 | 18.49 | 81.51 | 42.05 | 19.70 | 38.25 |
| 10 | 38.47 | 18.50 | 43.03 | 3.10 | 14.29 | 82.61 | 31.96 | 17.72 | 50.31 |
| Total | 57.48 | 23.01 | 19.50 | 9.66 | 20.32 | 70.02 | 49.57 | 22.57 | 27.86 |

Source – Unit level data of EUS 68th Round

Table 5: Quintile wise distribution of employment in Rural Odisha for the year 2011-12

| Decile Group | Self employed Agriculture | Self employed Non-Agriculture | Regular Wage / Salaried Employed | Agricultural Labour | Other Labour Labour | Others | Total |
|--------------|---------------------------|-------------------------------|----------------------------------|---------------------|---------------------|-------------|------------|
| 1 | 29.04 | 12.07 | 1.35 | 29.28 | 22.06 | 6.21 | 100 |
| 2 | 39.24 | 9.98 | 0.99 | 25.41 | 19.03 | 5.36 | 100 |
| 3 | 32.79 | 14.92 | 3.7 | 29.64 | 14.07 | 4.88 | 100 |
| 4 | 35.93 | 21.3 | 4.62 | 16.81 | 16.4 | 4.94 | 100 |
| 5 | 38.66 | 18.21 | 6.61 | 16.46 | 14.62 | 5.43 | 100 |
| 6 | 40.89 | 16.43 | 7.17 | 16.65 | 12.33 | 6.53 | 100 |
| 7 | 39.09 | 22.27 | 6.62 | 11.92 | 13.14 | 6.96 | 100 |
| 8 | 34.55 | 21.34 | 9.41 | 16.1 | 12.67 | 5.93 | 100 |
| 9 | 35.83 | 25.45 | 11.66 | 9.32 | 6.78 | 10.96 | 100 |
| 10 | 23.98 | 28.55 | 20.09 | 6.45 | 3.32 | 17.61 | 100 |
| Total | 35.05 | 19.04 | 7.19 | 17.81 | 13.45 | 7.46 | 100 |

Source – Calculated by Author from unit level data on EUS 68th round

Table 6: Quintile wise distribution of employment in Urban Odisha for the year 2011-12

| Decile Group | Self Employed | Regular Wage | Casual Labour | Others | Total |
|--------------|---------------|--------------|---------------|-------------|------------|
| 1 | 35.75 | 12.2 | 37.59 | 14.45 | 100 |
| 2 | 53.59 | 11.39 | 33.75 | 1.26 | 100 |
| 3 | 48.79 | 27.89 | 20.06 | 3.27 | 100 |
| 4 | 55 | 27.62 | 4.35 | 13.02 | 100 |
| 5 | 40.35 | 44.72 | 8.62 | 6.31 | 100 |
| 6 | 34.36 | 47.62 | 1.4 | 16.62 | 100 |
| 7 | 56.44 | 30.09 | 7.02 | 6.45 | 100 |
| 8 | 41.79 | 41.51 | 7.68 | 9.02 | 100 |
| 9 | 30.84 | 62.08 | 0.46 | 6.61 | 100 |
| 10 | 20.59 | 66.4 | 1.84 | 11.18 | 100 |
| Total | 41.78 | 37.16 | 12.27 | 8.79 | 100 |

Source: Calculated by Author from unit level data on EUS 68th round

still a large chunk of the population depends on it. Hence the growth of the primary sector only will result in increase in income and inclusiveness of this sector.

In rural Odisha out of 60% of employment in the primary sector for the lowest decile 30% are cultivator and 30% are agricultural labour. Around 22% are other labour depends on the non-farm sector while very few have been employed in the regular wage/salaried, other categories from lowest decile. With an increase in income decile, the percentage of employment in the regular wage and the self-employed non-agriculture has been increasing. Hence the casual labour (farm and non-farm) along with self-employed agriculture are predominantly from poor household of Odisha. In urban Odisha the poor are basically from the casual labour sector. Hence it became important to have a look whether the income or wage of the casual labour has been increasing over the years in order for growth to become inclusive.

5. Conclusion

Major structural changes in Odisha have taken place in 2000's. In terms of employment, the 1st period witnessed a faster rise in LFPR, in comparison to the 2nd period. But self-employment witnessed a faster rise in the 2nd period.

The class-wise distribution of employment show that the lower strata are engaged in casual labour and are self-employed. Though Odisha economy witnessed a faster growth rate yet in terms of employments it lags behind during the post reform period. With faster growth in income the state government should focus on improvement of qualitative as well quantitative improvement of employment in the state to achieve faster poverty reduction and inclusive pro-poor growth during the post reform period.

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"For an entrepreneur, motivation is the core of all things. "

– Brendon Burchard

Entrepreneurship : India *vis-à-vis* Select Countries

RAJESH SUND

Introduction

The Global Entrepreneurship Monitor (GEM) 2018 Report is the 20th consecutive Global Report that the GEM consortium has published as part of its worldwide research project since it was founded in 1997 by academics from Babson College and the London Business School. Babson College is a founding institution and sponsor of the Global Entrepreneurship Monitor (GEM). Located in Wellesley, Massachusetts, USA, Babson is recognized internationally as a leader in entrepreneurial management education. The GEM is an example of a not-for-profit social entrepreneurship to create an index for entrepreneurial competitiveness similar to the Global Competitiveness Index that is published annually by the World Economic Forum.

An important global trend that has been observed during the last few decades is that entrepreneurship activities continue to grow all over the world. In many countries the decision to start a new business was traditionally triggered by necessity, but today an increasing share of entrepreneurship is triggered by opportunity. The new digital technologies can certainly explain a large portion of this shift. However, additional factors are the change in the attitude towards entrepreneurship as well as regulations imposed in different countries.

The 20th Anniversary Report profiles 49 economies with respect to demographics, their potential impact, the diversity of forms they take, and their longer-term sustainability. The Report looks outward at the environment for entrepreneurship, reporting on societal attitudes, self-perceptions and entrepreneurial affiliations with entrepreneurs, and then introducing the “National Entrepreneurship Context Index”(NECI), which ranks economies based on 12 indicators of the external context that can influence entrepreneurship. NECI assesses the environment for entrepreneurship in these economies. Derived from 12 framework conditions, the NECI weighs

ratings for these conditions by the importance experts place on them. NECI results are consistently high in the East and South Asia region, where three economies rank in the top five for NECI results—Indonesia (2), Taiwan (4), and India (5).

GEM provides a comprehensive set of indicators on entrepreneurship, allowing for the construction of detailed profiles of entrepreneurship in each economy studied. GEM's Adult Population Survey captures both informal and formal activity, moving beyond reliance on business registrations which explain only a small proportion of entrepreneurship in many societies. With a rigorous methodology, consistently followed by all GEM teams and meticulously supervised and processed by a central data team, GEM enables cross-national comparisons. GEM tracks societal attitudes and perceptions, considering that society needs people who are ready to venture into entrepreneurship and those willing to support their efforts. Additionally, GEM measures multiple phases of the process, recognizing, for example, that mature businesses provide stable jobs and on going value to other stakeholders. And while firm-level studies can offer useful information, GEM's focus is on the people who start and run businesses.

The classification of economies by geographic region is adapted from the United Nation's composition of the world's macro geographical regions. Classification of economies by economic development level is adapted from the World Economic Forum (WEF). According to WEF's classification, the factor-driven phase is dominated by subsistence agriculture and extraction businesses, with a heavy reliance on (unskilled) labour and natural resources. Countries like India, Kazakhstan and Vietnam etc, are factor-driven economies.

In the efficiency driven phase, an economy has become more competitive with more-efficient production processes and increased product quality. China, Indonesia, Iran, Lebanon, Malaysia, Saudi Arabia, Thailand, Brazil, Chile, Colombia, Mexico etc are Efficiency-driven economies. As development advances into the innovation-driven phase, businesses are more knowledge-intensive, and the service sector expands. France, Germany, Greece, Ireland, Italy, Netherlands, Sweden, Switzerland, United Kingdom, Canada and United States etc, are innovation-driven economies. Economies in transition from factor-driven to efficiency-driven have been grouped with the factor-driven economies, while those in transition from efficiency-to innovation-driven have been included in the efficiency-

driven category.

Based on this classification, ten important select countries are chosen for comparison on various parameters from 2017/18 Report and presented in Appendix for reference. The factor score is presented as a numerical value *indicating a country's relative position or standing on the "entrepreneurial spirit" (the latent factor, common to data set)*.

Total early-stage Entrepreneurial Activity (TEA) rates with the proportion representing necessity motives, and the proportion representing 'Improvement-Driven Opportunity' (IDO) among economies in the regional groups indicates that the highest rates in this region are primarily due to IDO. In contrast, few people in India are motivated to improve their lives by pursuing entrepreneurial opportunities; rather, they more often start businesses because they have no better work option.

Innovative entrepreneurs are those who state their products or services are new to all or some customers and for which there are no or few competitors. In India, moderate TEA rates combined with 47% innovation levels suggest a demonstrable impact overall. Entrepreneurs are considered 'international' by GEM when 25% or more of their sales are from customers outside their economies. Countries with large populations such as China, the United States, and Indonesia provide large and diverse, as well as familiar, internal markets that may be attractive and sufficient for most entrepreneurs. However, India is an exception, with over one-fourth of entrepreneurs selling outside this large country's borders.

It may not be a surprise that many businesses are family-owned and run. Family-run small businesses are visible in most communities; and family involvement can be seen in many regional, national and global businesses. In China and Thailand, about one in every four entrepreneurs starting a business indicates that it is or will be owned and managed jointly with family members. In Indonesia, there are also indications that family businesses are common, however less explicitly via co-ownership and co-management. In India, on the other hand, less than one-fourth of entrepreneurs rely on family.

In India, the exits were nearly three-fourths due to problems with profitability or finance. In East and South Asia, both India and Thailand show that, among people who say there are good opportunities for entrepreneurship, more than half would be prevented from starting a business due to fear of failure. There appear to be situations where

people see opportunities around them for starting businesses, yet few are taking steps to start. This includes India as well; capability perceptions are slightly higher than opportunity perceptions in 2018, which suggests that people see opportunities and believe they are capable of pursuing them, yet relatively few are actually taking steps to start businesses.

The Government of India during last few years has

Table 1: Entrepreneurship values based on different parameters

| Self - Perceptions About Entrepreneurship | | |
|---|--------------|----------------|
| | Value | Rank/49 |
| Perceived opportunities | 49.8 | 20 |
| Perceived capabilities | 52.2 | 20 |
| Fear of failure | 50.1 | 5 |
| Entrepreneurial intentions | 20.6 | 24 |
| Activity | | |
| Total early-stage Entrepreneurial Activity (TEA) | | |
| TEA 2018 | 11.4 | 23 |
| Established business ownership rate | 7 | 24 |
| Entrepreneurial Employee Activity-EEA | 0.8 | 44 |
| Motivational Index | | |
| Improvement-Driven Opportunity/ Necessity Motive | 0.5 | 48 |
| Gender Equality | | |
| Female/Male TEA Ratio | 0.62 | 27 |
| Female/Male Opportunity Ratio | 0.89 | 33 |
| Entrepreneurship Impact | | |
| Job expectations(6+) | 8.4 | 43 |
| Innovation | 46.9 | 3 |
| Industry(%in Business Services Sector) | 1.9 | 48 |
| Societal Value About Entrepreneurship | | |
| High status to entrepreneurs | 65 | 36 |
| Entrepreneurship a good career choice | 63.7 | 23 |

Source: Global Entrepreneurship Monitor 2018/2019 Global Report

taken a lot of initiatives to strengthen entrepreneurship in India include Start-up India, Stand-up India and Digital India. Similarly, the 'Micro Units Development and Refinance Agency (MUDRA) Bank' has given a boost to young people to create new businesses and start-ups. As a result of all these efforts, India ranks 77/190 in Ease of Doing Business Rating (2018), ranks 137/190 in Starting a Business Ranking (2018) and Ranks 58/140 in Global Competitiveness Report (2018) whereas it is 44/63 in IMD's World Competitiveness Yearbook Ranking (2018).

Appendix

Table 2: Ranking of Societal Values of Entrepreneurship by Region (%age of Population aged 18-64 years)

| Economy | Entrepreneurship as a good career choice | High status to successful Entrepreneurs | Media attention for Entrepreneurship |
|-----------------------------|---|---|--------------------------------------|
| South Africa | 69.4 | 74.9 | 72.7 |
| China | 66.4 | 74.6 | 71.0 |
| India | 53.0 | 56.2 | 44.8 |
| Japan | 24.3 | 52.0 | 56.2 |
| Malaysia | 77.1 | 69.9 | 83.2 |
| Thailand | 74.7 | 74.5 | 84.3 |
| France | 59.1 | 74.2 | 47.0 |
| Germany | 51.3 | 77.9 | 49.5 |
| United Kingdom | 55.6 | 75.6 | 58.5 |
| USA | 63.1 | 75.5 | 74.5 |
| Good career choice - | Percentage of the adult population between the ages of 18 and 64 years who believe that entrepreneurship is a good career choice | | |
| High Status - | Percentage of the adult population between the ages of 18 and 64 years who believe that high status is afforded to successful entrepreneurs | | |

Source: Global Entrepreneurship Monitor 2017/2018 Global Report

Table 3: Ranking of Self - perceived Entrepreneurial Opportunities Capabilities, Fear of Failure and Intentions by Region (%age of Population aged 18-64 years)

| Economy | Perceived opportunities | Perceived capabilities | Fear of failure | Entrepreneurial intentions |
|-------------------------------------|---|------------------------|-----------------|----------------------------|
| South Africa | 43.2 | 39.9 | 31.3 | 11.7 |
| China | 35.2 | 27.2 | 41.5 | 15.3 |
| India | 44.9 | 42.1 | 39.6 | 10.3 |
| Japan | 7.4 | 10.8 | 41.2 | 3.7 |
| Malaysia | 45.1 | 46.1 | 45.0 | 17.6 |
| Thailand | 49.1 | 48.9 | 52.7 | 37.4 |
| France | 34.1 | 36.3 | 39.1 | 17.6 |
| Germany | 42.0 | 37.5 | 36.3 | 7.2 |
| United Kingdom | 43.0 | 48.2 | 35.9 | 7.3 |
| USA | 63.6 | 54.3 | 33.4 | 14.5 |
| Perceived opportunities- | Percentage of the population aged between 18 and 64 years who see good opportunities to start a firm in the area where they live | | | |
| Perceived capabilities - | Percentage of population aged between 18 and 64 years who believe they have the required skills and knowledge to start a business | | | |
| Fear of failure - | Percentage of the population aged between 18 and 64 years perceiving good opportunities to start a business who indicate that fear of failure would prevent them from setting up a business | | | |
| Entrepreneurial Intentions - | Percentage of the population aged between 18 and 64 years (individuals involved in any stage of entrepreneurial activity excluded) who are latent entrepreneurs and who intend to start a business within three years | | | |

Source: Global Entrepreneurship Monitor 2017/2018 Global Report

Table 4: Ranking of Types of Entrepreneurial Activity by Region (%age of Population aged 18-64 years)

| Economy | Nascent Entrepreneurship Rate | New Business Ownership Rate | Early- Stage Entrepreneurial Activity (Tea) | Entrepreneurial Employee Activity (EEA) | Established Business Ownership Rate | Discontinuation of Business |
|----------------|-------------------------------|-----------------------------|---|---|-------------------------------------|-----------------------------|
| South Africa | 7.5 | 3.8 | 11.0 | 0.5 | 2.2 | 6.0 |
| China | 3.7 | 6.4 | 9.9 | 1.4 | 6.8 | 2.8 |
| India | 4.9 | 4.6 | 9.3 | 0.2 | 6.2 | 3.2 |
| Japan | 3.2 | 1.6 | 4.7 | 2.8 | 6.3 | 1.5 |
| Malaysia | 15.4 | 6.6 | 21.6 | 1.4 | 3.8 | 8.3 |
| Thailand | 1.6 | 12.1 | 21.6 | 4.5 | 15.2 | 9.2 |
| France | 2.9 | 1.1 | 3.9 | 3.9 | 3.6 | 3.3 |
| Germany | 3.4 | 2.0 | 5.3 | 5.7 | 6.1 | 1.6 |
| United Kingdom | 4.4 | 4.2 | 8.4 | 8.0 | 6.7 | 2.6 |
| USA | 9.4 | 4.6 | 13.6 | 7.6 | 7.8 | 4.0 |

Nascent Entrepreneurship Rate - Percentage of the adult population aged between 18 and 64 years that have started a business that is less than 4 months old and that has not paid salaries of wages

New Business Ownership Rate - Percentage of the adult population aged between 18 and 64 years that have started a business that is between 4 and 42 months old and is paying salaries or wages

Total Early - stage Entrepreneurial Activity - TEA - Percentage of the adult population between the ages of 18 and 64 years who are in the process of starting a business or already started a business (a nascent entrepreneur or owner- manager of a new business) which is less than 42 months old.

Entrepreneurial Employee Activity - EEA - Percentage of the adult population aged 18 to 64 years who as employees have been involved in entrepreneurial activities such as developing or launching new goods or services, or setting up a new business unit, a new establishment or subsidiary.

Established Businesses - Percentage of the adult population aged between 18 and 64 years who are currently an owners manager of an established business, i.e. owning and managing a running business that has paid salaries, wages or any other payments to the owners for more than 42 months.

Discontinuation of Businesses - Percentage of the adult population aged between 18 and 64 years that's have discontinued a business in the past 12 months, either by selling, shutting down or otherwise down or otherwise discontinuing an owner/ management relationship with the business.

Source: Global Entrepreneurship Monitor 2017/2018 Global Report

Table 5: Ranking of Entrepreneurial Motivation for TEA by Region

| Economy | Early - stage Entrepreneurial activity (TEA) | Necessity driven (% of TEA) | Opportunity driven (% of TEA) | Improvement driven (% of TEA) | Motivational index |
|----------------|--|-----------------------------|-------------------------------|-------------------------------|--------------------|
| South Africa | 11.0 | 24.9 | 75.1 | 36.4 | 1.5 |
| China | 9.9 | 32.4 | 66.0 | 32.5 | 1.0 |
| India | 9.3 | 38.6 | 39.1 | 28.9 | 0.7 |
| Japan | 4.7 | 15.6 | 79.6 | 52.2 | 3.4 |
| Malaysia | 21.6 | 7.0 | 89.3 | 64.4 | 9.2 |
| Thailand | 21.6 | 8.8 | 86.8 | 69.4 | 7.9 |
| France | 3.9 | 20.6 | 77.6 | 61.5 | 3.0 |
| Germany | 5.3 | 11.1 | 79.0 | 59.9 | 5.4 |
| United Kingdom | 8.4 | 13.6 | 82.2 | 60.8 | 4.5 |
| USA | 13.6 | 10.6 | 86.2 | 76.3 | 7.2 |

Necessity-driven - Percentage of TEA of the adult population aged 18 - 64 years old who have started a business out of necessity because they have no other option

Opportunity-driven - Percentage of TEA of the adult population aged 18-64 years old who have started a business out of an opportunity

Motivation index - The ratio between improvement-driven opportunity TEA and necessity - driven TEA

Source: Global Entrepreneurship Monitor 2017/2018 Global Report

Table 6: Ranking of Reasons for Business Exit by Region (%age of Exiting a Business in the Previous Year)

| Economy | Sold the Business | Unprofitable | Problems with Finance | Another Opportunity | Exit | Retirement | Personal Reasons | Incident | Bureaucracy |
|----------------|-------------------|--------------|-----------------------|---------------------|------|------------|------------------|----------|-------------|
| South Africa | 3.6 | 36.0 | 27.0 | 4.9 | 0.8 | 1.7 | 18.5 | 5.7 | 1.8 |
| China | 4.4 | 36.1 | 31.2 | 4.4 | 1.0 | 11.0 | 5.8 | 5.4 | 0.8 |
| India | 13.2 | 31.6 | 37.9 | 3.1 | 3.3 | 0.5 | 3.8 | 6.7 | 0.0 |
| Japan | 12.7 | 26.6 | 3.2 | 7.8 | 7.3 | 0.0 | 25.3 | 17.0 | 0.0 |
| Malaysia | 2.5 | 25.0 | 21.4 | 17.7 | 1.6 | 4.9 | 18.9 | 7.1 | 1.0 |
| Thailand | 1.5 | 25.9 | 19.4 | 8.5 | 2.5 | 8.4 | 13.7 | 5.3 | 14.8 |
| France | 8.5 | 23.8 | 16.6 | 5.8 | 0.0 | 4.6 | 13.1 | 8.6 | 18.9 |
| Germany | 5.9 | 29.2 | 5.7 | 12.9 | 9.2 | 2.5 | 26.5 | 1.8 | 6.1 |
| United Kingdom | 2.4 | 19.1 | 8.4 | 22.2 | 5.6 | 5.8 | 25.1 | 4.3 | 7.2 |
| USA | 0.0 | 8.0 | 5.2 | 30.2 | 8.4 | 5.4 | 21.1 | 1.9 | 20.0 |

Source: Global Entrepreneurship Monitor 2017/2018 Global Report

Table 7: Ranking of Job Creation Expectations for TEA by Region, (%age of TEA)

| Economy | 0 jobs in 5 Years | 1-5 jobs in 5 years | 6 or more jobs in 5 years |
|----------------|-------------------|---------------------|---------------------------|
| South Africa | 20.7 | 47.3 | 32.0 |
| China | 53.0 | 22.7 | 24.3 |
| India | 63.5 | 27.0 | 9.5 |
| Japan | 47.1 | 24.5 | 28.4 |
| Malaysia | 31.8 | 55.0 | 13.2 |
| Thailand | 36.4 | 34.1 | 29.6 |
| France | 35.0 | 37.1 | 27.9 |
| Germany | 48.1 | 30.0 | 22.0 |
| United Kingdom | 46.9 | 29.7 | 23.4 |
| USA | 29.3 | 32.1 | 38.6 |

Source: Global Entrepreneurship Monitor 2017/2018 Global Report

Table 8: Innovation level for TEA by Region (%age of TEA)

| Economy | Innovation (product is new to all or some customers and few/no businesses offer the same product) |
|----------------|---|
| South Africa | 29.7 |
| China | 25.5 |
| India | 25.6 |
| Japan | 24.7 |
| Malaysia | 29.3 |
| Thailand | 29.3 |
| France | 48.6 |
| Germany | 23.7 |
| United Kingdom | 27.1 |
| USA | 35.9 |

Innovation - Product is new to all or some customers AND few/no businesses offer the same product

Source: (i) Global Entrepreneurship Monitor 2017/2018 Global Report

(ii) Global Entrepreneurship Monitor 2018/2019 Global Report

"Someone is sitting in the shade today because someone planted a tree a long time ago.

– Warren Buffett

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