

# EMOTIONAL INTELLIGENCE - YARDSTICK TO COMBAT STRESS AMONG PLASTIC INDUSTRY ENTREPRENEURS

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The Indian plastics industry made a promising beginning in 1945 and has registered a fast growth since then. The growth accelerated in the 1960s and with the liberalization of Indian economy in 1991, it has shown tremendous growth and diversification and is now the star performer along with the other fast growing industries like electronics, computers and white goods. India has been projected to be world number three in plastics consumption after the USA and China. This seems to be a very achievable position over the past decades as, the developed world has reported 3-4 per cent growth, but the Indian plastic industry has reported double digit growth each year. According to AIPMA, it is now estimated that the plastic industry in India will grow at a rate of over 15 per cent per annum for several years to come. Mumbai, Delhi, Kolkata, Chennai, Bangalore, Vadodara, Vapi, Kanpur, Amritsar, Coimbatore, Bongaigaon, Barauni, Mettur, Durgapur, Pimpri (Pune), Rishra, etc. are some of the outstanding centres which are well known for the production of either plastic raw materials or finished plastic goods. Records in AIPMA states that Kuwait, Saudi Arabia, Egypt, Kenya, Nigeria, Iraq, Syria, U.K., Thailand, Sri Lanka, and a number of other countries are the regular buyers of Indian plastic goods.

Currently, the Indian plastics industry is spread across the country, employing about 4 million people and over 2,000 exporters. That is why; the Government has accorded it a thrust industry status. The time has come where the plastics industry has the capacity to influence the progress of all other sectors. Plastic industry is regarded as 'sunrise' industry due to its increasing versatility and burgeoning worldwide demand. No wonder we are living in the plastic age. The Government has set up the Central Institute of Plastics Engineering and Technology (CIPET) at Chennai with the primary objective to develop skilled manpower and provide technical services to the plastic industry. The unprecedented growth in the use of plastics as a packing material has created a serious problem of solid waste disposal. Plastic is a non-biodegradable substance and creates problems of environmental pollution. Many advanced countries are seriously thinking of reverting back to conventional packing materials, thereby dealing big blow to this industry. However, Indian plastic industry may thrive on the recycling of the used plastic material for which rag pickers can make valuable contribution. Recycling solves the problem of waste disposal, lessens the burden on raw materials, lightens the pressure on the biosphere and provides jobs to millions. It may be mentioned here that this process needs technological development and upgradation.

The major challenges being faced by the entrepreneurs of the plastic industry in India are export/import related problems, insufficient government support, high competition, high risks, crisis in raw material market, low plastic consumption rate in India, electricity problem, moderate technological advancement, due to which most of the entrepreneurs face stress. Entrepreneurial stress is one of the major health hazards of the modern environment. It accounts for much of the physical illness, substance abuse, and family problems experienced by millions of

entrepreneurs. Also, entrepreneurial stress and stressful working conditions have been linked to low productivity, increased rates of accidents on and off the job. The National Institute for Occupational Safety and Health (NIOSH), states that job stress, now more than ever, poses a threat to the health of workers – and the health of organizations. Many research studies have focused on the role of emotions in the workplace and have conceptually examined the relationship between cognition and emotions. This movement has largely been attributed to new research around the construct of Emotional Intelligence (EI). Emotional Intelligence involves behaviours related to the experience of emotion; specifically it involves expressing, recognizing, understanding and managing emotions. With respect to organizational context, emotional intelligence was popularized by Goleman (1998) who described emotional intelligence as a yardstick for recruiting and developing employees. Emotional intelligence as a yardstick predicts the technical and intellectual abilities in workforce to do their jobs and focuses on their emotion related skills. In 2007 Ramos, Fernandez-Berrocal & Extremera have pointed out that individuals with higher emotional clarity have more adaptability to stressful situations. Thus there is a strong need for systematic research on the relationship between emotional intelligence and entrepreneurial stress so as to assist entrepreneurs in their development and stress management.

### Statement of problem

Plastic industry is regarded as 'sunrise' industry due to its increasing versatility and burgeoning worldwide demand. The time has come where the plastics industry has the capacity to influence the progress of all other sectors. The industry has been facing a number of problems due to which most of the entrepreneurs face stress. Entrepreneurial stress is one of the major health hazards of the modern environment. Entrepreneurial stress and stressful working conditions have been linked to low productivity, increased rates of accidents on and off the job. This proposed research aspires to explore options, so as to assist entrepreneurs in their development and stress management by using emotional intelligence as a yardstick.

### Objectives

- To explore the emotional intelligence of entrepreneurs' stress.
- To understand the emotional intelligence of the entrepreneurs of Coimbatore plastic industry.
- To measure the level of entrepreneurial stress among the entrepreneurs of Coimbatore plastic industry.
- To analyze the causal factors of stress among the entrepreneurs of Coimbatore plastic industry.
- To provide suggestions to the entrepreneurs to improve the emotional intelligence and manage entrepreneurial stress with the help of the competence.

### Review of literature

The research on emotional intelligence has increased in the last three decades resulting in various conceptualizations and measures (Salovey & Mayer, 1990; Petrides & Furnham, 2000; Weisinger, 2005; Steiner, 2005; Singh, 2006; Bhattacharya & Sengupta, 2007). Many research studies have identified that emotional intelligence has an impact on individual well-being (Lenaghan, Buda, & Eisner 2007), stress tolerance (Chapman & Clarke 2003; Dulewicz, Higgs, & Slaski 2003; Nikolaou & Tsaousis 2002; Lopes, Grewal, Kadis, Gall, & Salovey 2006), leadership qualities (Rosete & Ciarrochi 2005), organisational commitment (Nikolaou & Tsaousis 2002; Carmeli 2003), performance (Shaffer, Hom Hung, Hong Kong, & Shaffer 2005; Dulewicz, Higgs, & Slaski 2003; Lam & Kirby 2002; Lopes et al., 2006), work-family balance (Lenaghan et al., 2007; Carmeli, 2003). In one of the studies to examine the relationship between emotional intelligence and stress, Slaski and Cartwright (2002) investigated emotional intelligence, stress and health in a group of managers. The researchers reported that there has been a significant relationship between emotional intelligence, stress and health and that emotional intelligence plays an important role in moderating the stress process and increasing an individual's resilience to stress. In fact in many research studies emotional intelligence has consistently been related to and predictive of positive outcome measures, such as life satisfaction, work performance, healthy relationships, physical health, and psychological well-being (e.g., Ciarrochi, Forgas, Mayer, 2001; Salovey et al., 1999). People high in emotional intelligence seem to possess skills that allow them to cope effectively with the challenges they face which in the long-run contribute to such positive outcomes. Schutte et al. (2001) found that low emotional intelligence is a predictor of alcohol and drug use. Ciarrochiet al. (2002) found that emotion perception, a component of emotional intelligence, moderated the relationship between daily hassles and psychological health (e.g., depression, hopelessness, suicidal ideation). The

ability to manage ones' emotions (another EI component), moderated the relationship between hassles and suicidal ideation in the opposite direction, such that the relationship was stronger for people low in managing emotions than for people high in managing emotions.

### Research Methodology

The dependent variable entrepreneurial stress has been measured by using six major sub-scales each assessing work roles known to be associated with stress; (1) Role Overload (RO) –whether the entrepreneur is able to accomplish the task; (2) Role Insufficiency (RI) – whether the entrepreneurs' skills, and experience are appropriate to the requirements; (3) Role Ambiguity (RA) – whether priorities, expectations, and evaluation criteria are clear to the entrepreneurs; (4) Role Boundary (RB) – whether the entrepreneur is experiencing conflicting role demands; (5) Responsibility (R) – whether the entrepreneur has, or feels, a great deal of responsibility for the performance; (6) Physical Environment (PE) – whether the entrepreneurs is exposed to high levels of toxins or extreme physical conditions.

The predictor variable consists of five major subscales of emotional intelligence and measures the way an entrepreneur thinks, feels and acts using emotions and emotional information; (1) Emotional Recognition and Expression (ERE) – ability to identify feelings and emotional states, and to express those to others; (2) Understanding Emotions (UE) (external) – ability to identify and understand the emotions of others and those that manifest in external stimuli; (3) Emotions Direct Cognition (EDC) – extent to which emotions and emotional information is incorporated in decision making and problem solving; (4) Emotional Management (EM) – ability to manage positive and negative emotions within oneself and others; (5) Emotional Control (EC) – ability to control strong emotional states experienced at work.

### Hypotheses

- **H1:** Emotional recognition and expression are significantly related to entrepreneurial stress variables.
- **H2:** Ability to identify and understand the emotions of others is negatively related to entrepreneurial stress.
- **H3:** There exists a significant relationship between emotions direct cognition and entrepreneurial stress variables.
- **H4:** Emotional management is significantly correlated with entrepreneurial stress variables.
- **H5:** There exists a significant relationship emotional control and entrepreneurial stress variables.

### Study site and sample

The present study was conducted on a sample of 250 respondents (sample size 50% of entrepreneurs' strength 500) from Coimbatore. The respondents consisted of Plastic industry entrepreneurs. A total of 300 questionnaires were distributed and 250 completed questionnaires were received. The data obtained have been analyzed statistically by using percentages, mean, standard deviation, inter-correlation and regression.

**Table 1** shows the demographic profile of respondents. It has been observed that 44% respondents are into business less than 10 years; 34 % are into business for 5 to 10 years and 22% respondents are into business for more than 10 years. The maximum number of respondents (63.60 %) falls in the age group of 20-40 years; followed by below 20 years of age (32 %) and then (4.40 %) respondents fall in the age group of above 40 years. As far as qualification of respondents is concerned 46% respondents were under-graduates, 37.6 % were 10<sup>th</sup>/12<sup>th</sup> and remaining 16.4 % were post-graduates.

**Table 1: Demographic Profile of Respondents**

CHARACTERISTICS	NO. OF RESPONDENTS	PERCENTAGE
<b>Into Business</b>		
Below 10 years	110	44
5 to 10 years	85	34
Above 10 years	55	22
<b>Age</b>		

Below 20 yrs	80	32
20- 40 yrs	159	63.6
Above 40 yrs	11	4.4
<b>Education</b>		
10 <sup>th</sup> /12 <sup>th</sup>	94	37.6
Under-Graduation	115	46
Post-Graduation	41	16.4

**Table 2** shows the descriptive statistics for all variables including mean, standard deviation and Cronbach's alpha. Participants (i.e. Entrepreneurs) indicated high levels of stress. The stressor role insufficiency (4.01) contributes maximum to the entrepreneurial role stress, followed by role ambiguity (3.88) and role overload (3.84). Also stress level of participants due to responsibility factor has been found to beat a higher side (3.78). With respect to physical environment the respondents exhibit low stress (2.06).

The mean scores for emotional intelligence of participants has been found to be at lower side, indicating a very low score for 'emotional management' (1.89) followed by emotions direct cognition (1.92) and emotional control (2.02). Also the participants scored low for emotional recognition and expression (2.42) and understanding emotions (2.69).

**Table 2: Descriptive statistics**

Variables	Mean	Standard Deviation	Cronbach's alpha coefficient
Role Overload	3.84	.34	.71
Role Insufficiency	4.01	.38	.73
Role Ambiguity	3.88	.43	.77
Role Boundary	3.75	.44	.81
Responsibility	3.78	.32	.70
Physical Environment	2.06	.26	.78
Emotional Recognition and Expression	2.42	.79	.91
Understanding Emotions	2.69	.79	.94
Emotions Direct Cognition	1.92	.48	.93
Emotional Management	1.89	.42	.90
Emotional Control	2.02	.57	.92

**Table 3** shows the results of correlation analyses. To test the relationship between emotional intelligence and entrepreneurial stress, Pearson product-moment correlation analyses were conducted. The results of the correlation analysis indicate that emotional recognition and expression (ability to identify feelings and emotional states, and to express those to others) have a significant negative correlation with the stressor role insufficiency (-.216\*\*,  $p < 0.05$ ). Therefore hypotheses **h1** is accepted.

Emotions direct cognition has been found to be significantly correlated with all dimensions of entrepreneurial stress vis-à-vis role overload (-.522\*\*,  $p < 0.05$ ), role insufficiency (-.432\*\*,  $p < 0.05$ ), role ambiguity (-.553\*\*,  $p < 0.05$ ), role boundary (-.497\*\*,  $p < 0.05$ ) and responsibility (.519\*\*,  $p < 0.05$ ). Therefore hypotheses **h3** is supported.

Further emotional management has been found to have significant negative correlation with role overload (-.595\*\*,  $p < 0.05$ ), role insufficiency (-.462\*\*,  $p < 0.05$ ), role ambiguity (-.588\*\*,  $p < 0.05$ ), role boundary (-.574\*\*,  $p < 0.05$ ) and responsibility (-.542\*\*,  $p < 0.05$ ). Therefore hypotheses **h4** is accepted.

Finally emotional control has also been found to be significantly correlated with all entrepreneurial stress variables vis-à-vis role overload (-.693\*\*,  $p < 0.05$ ), role insufficiency (-.451\*\*,  $p < 0.05$ ), role ambiguity (-.603\*\*,  $p < 0.05$ ), role boundary (-.541\*\*,  $p < 0.05$ ) and responsibility (-.555\*\*,  $p < 0.05$ ). Therefore hypotheses **h5** is supported.

The variable understanding emotions (ability to identify and understand the emotions of others and those that manifest in external stimuli) has not been found to be significantly correlated with any of the dimensions of entrepreneurial stress. Therefore hypotheses **h2** has not been supported.

**Table 3: Correlation Analysis**

	Role Overload (RO)	Role Insufficiency (RI)	Role Ambiguity (RA)	Role Boundary (RB)	Responsibility (R)	Physical Environment (RE)
Emotional Recognition and Expression (ERE) Pearson correlation Sig.(2 tailed) N	-.128* .044 250	-.216** .001 250	-.159* .062 250	-.081 .193 250	-.110 .045 250	.092 .148 250
Understanding Emotions (UE) Pearson correlation Sig.(2 tailed) N	-.056 .363 250	.001 -.985 250	-.140* .063 250	-.050 .449 250	-.124* .102 250	.034 .592 250
Emotions direct cognition (EDC) Pearson correlation Sig.(2 tailed) N	-.522** .000 250	-.432** .000 250	-.553** .000 250	-.497** .000 250	-.519** .000 250	.081 .137 250
Emotional Management (EM) Pearson correlation Sig.(2 tailed) N	-.595** .000 250	-.462** .000 250	-.588** .000 250	-.574** .000 250	-.542** .000 250	.147* .020 250
Emotional Control (EC) Pearson correlation Sig.(2 tailed) N	-.693** .000 250	-.451** .000 250	-.604** .000 250	-.541** .000 250	-.555** .000 250	.119 .061 250

\*\*Correlation is significant at 0.05 level (2 tailed)

**Table 4** shows the results of regression analyses In order to explore which of the specific dimensions of emotional intelligence were important as predictors of entrepreneurial stress, several standard regression analyses were undertaken with each of the six stress variables as the dependent variable, and each of the five emotional intelligence dimensions as the independent variables. As shown in Table 4 emotions direct cognition, emotional management and emotional control emerged as significant predictor for all regression models. Within those emotional management was the strongest predictor of role overload ( $\beta = -.156$ ,  $p < 0.05$ ), role insufficiency ( $\beta = -.189$ ,  $p < 0.05$ ), role ambiguity ( $\beta = -.250$ ,  $p < 0.05$ ), role boundary ( $\beta = -.328$ ,  $p < 0.05$ ) and responsibility ( $\beta = -.167$ ,  $p < 0.05$ ).



**Table 4: Standard Regression Analyses showing each Dependent Stress Variable with the Emotional Intelligence Predictor Variables**

Regression Model	Beta Value (b)	Significance
1. Role Overload		
Emotions Direct Cognition	-.086	.039
Emotional Management	-.156	.003
Emotional Control	-.303	.000
2. Role Insufficiency		
Emotional Recognition and Expression	-.054	.046
Emotions Direct Cognition	-.135	.018
Emotional Management	-.189	.008
Emotional Control	-.132	.011
3. Role Ambiguity		
Emotions Direct Cognition	-.201	.000
Emotional Management	-.250	.000
Emotional Control	-.236	.000
4. Role Boundary		
Emotions Direct Cognition	-.157	.008
Emotional Management	-.328	.000
Emotional Control	-.177	.001
5. Responsibility		
Emotions Direct Cognition	-.148	.001
Emotional Management	-.167	.002
Emotional Control	-.155	.000

## CONCLUSION

The present study examined the level of entrepreneurial stress among Plastic industry entrepreneurs in Coimbatore district and also makes an attempt to understand the reasons of such stress and its relationship with emotional intelligence. Plastic industry is regarded as 'sunrise' industry due to its increasing versatility and burgeoning worldwide demand. The time has come where the plastics industry has the capacity to influence the progress of all other sectors. The industry has been facing a number of problems due to which most of the entrepreneurs face stress. Entrepreneurial stress is one of the major health hazards of the modern environment. Entrepreneurial stress and stressful working conditions have been linked to low productivity, increased rates of accidents on and off the job. The results of descriptive analysis indicated that the stressor 'role insufficiency' (4.01) contributes maximum to the entrepreneurial stress. With respect to emotional intelligence of employees it has been found that four dimensions of emotional intelligence were significant in the occupational stress process vis-à-vis emotions direct cognition, emotional management and emotional control. Collectively the results of study provided a rationale for the development of an emotional intelligence in order to deal with the negative emotions that arise from the experience of stress.

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