

## **Green Entrepreneurship: A Perceptual Study on Motivation and barriers with special reference to Engineering and MBA Graduates**

**Dr. P.Paramashivaiah** <sup>[a]</sup>

**Mr. Puttaswamy** <sup>[b]</sup>

**Mr. B.K.Suresh** <sup>[c]</sup>

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### **ABSTRACT**

Green entrepreneurship is a global phenomenon, which has been steadily rising since last decade and which embodies a new paradigm of socio-ecological knowledge. With global warming and energy crunch, sustainable eco-friendly businesses have begun capturing world's attention. It is felt that the adaptation of environmentally responsible business practices can open up new range of opportunities, as conceived by the entrepreneurs. At present green entrepreneurship thrown open numerous opportunities for beginners who identify and exploit them with their innovative ideas in serving the society and environment. As little is written on green entrepreneurship so far, and hardly any empirical research, particularly in India, this study aims at understanding perception of beginners on green entrepreneurship. Literature study revealed various factors on motivation and barriers. Primary data collected through structured questionnaires from engineering and MBA graduates. purposive and snowball sampling method is followed to collect responses of outgoing graduates and alumni in the study area between November 2012 and February 2013. After the factor loading in this exploratory study, through ANOVA, hypothesis test proves that entrepreneurial background of the parents does not influence taking up green business, and also found there is no differences with respect to perceived barriers. The study suggests to conducive policies to attract investment in green businesses.

**KEY WORDS: Green entrepreneurship, graduates, motivation, Barriers**

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[a] Dr. P.Paramashivaiah  
Professor, Chairman & Dean,  
Department of Studies & Research in  
Commerce  
Tumkur University,  
Tumkur-572 103.  
E-mail: paramashivaiah@gmail.com

[b] Mr. Puttaswamy  
Assistant Professor & Research Scholar  
Government Women's College,  
Holenarasipura, Hassan Dist.  
Karnataka, India-573211

[c] Sri. B.K. Suresh,  
Assistant Professor,  
Dept of Studies & Research in Business  
Administration  
Tumkur University, Tumkur-572 103.

## 1. 1. Introduction

Entrepreneurs are individuals who conceive new business opportunities, and who take on the risks to convert those ideas into reality. Entrepreneurs bring about change and new opportunities both for themselves and for the society they belong to. According to Schumpeter (1934), one of the early researchers in the field, entrepreneurs are agents of “creative destruction” (old ways of doing things are transformed, overtaken, when enterprising individuals bring change in business systems). Change in the economy and a society is caused when there are people who individually set new directions, suggest new methods, and become successfully the role models. Entrepreneurs can be found in small, medium and large scale business concerns, non-profit organizations (called social entrepreneurs), who solve community problems, with innovative ideas. Along with enthusiastic and industrious individuals with profit motive (John C. Allen. & Stephani Malin 2008), a new breed of entrepreneur is creeping up to the business ranks fusing environmentalism with entrepreneurial spirit, potentially moving toward a reorganized ecological society (Bell 2004). Such sustainable oriented and environmentally concerned entrepreneurs are branded as Ecopreneurs, or Green Entrepreneurs. It is reflected from various academic theories. Until recently, more attention has been paid on greening of SMEs (Hillary 2000) and surprisingly little is written on green entrepreneurs.

## 1.2. Concept of Green Entrepreneurship

The term ‘green entrepreneur’ stems from the book ‘Business opportunities that can save the earth and make you money’ (Berle 1991). Berle’s book, being a practical oriented one, touches on topics such as recycling, nature preservation, renewable energy implementation, etc. In his book, Berle (1991) noted how "One man's garbage is another man's treasure".

Practically, even in India, few visible cases in waste management projects such as Ramky Enviro Engineers Ltd, by joint venture with Chinese company Chongqing Sanfeng Environmental Industry Group plans to take up waste to energy projects (Business Line 27.Jan. 2013 pg 2). Green entrepreneurship can be defined as a new company start-up in the environmental services or production industry, focused on natural resources or natural conditions such as eco-tourism, recycling, waste water- treatment, and biodiversity (Nikolaou et al.2011). Green business ideas aren’t limited to new businesses. Existing companies can implement greener, more environmentally friendly features and still provide the same or similar products and services.

One can be observed, from various research studies, that definitions on green entrepreneurship (Isaak 1998; Volery 2002; Gliedt and Parker 2007; Ndubisi and Nair 2009; Braun 2010; Nikolaou et al.2011) are related to the start-up phase of a company and the ability of the person or the company to align activities with environmental protection. Green entrepreneurs are embracing environmental values as a core component of their identity and seeing them as a competitive advantage of their company in the market place (Allen and Malin, 2008). However, recently green entrepreneurs are identified with well mixed motives of being green and ethical; their motives may not be solely green but a combination of green, ethical and social motives instead. These are often difficult to separate (as, indeed, the concept of sustainability reflects) (Walley and Taylor, 2002). The present paper studies the perceived motives and rationale of Engineering and MBA graduates to take up green entrepreneurship.

### 1.3. Significance of the Study

Today's burning issues causing environment are air and water pollution, solar ultra violet radiation, climate change, lead and mercury. These environmental threats have huge adverse impact on health, education, livelihood and well being of human, and it also affects the other creatures on the globe. India will be affected pretty massively by climate change.

The much awaited global conference, the Copenhagen Climate Change summit held on December 2009 has failed many hopes and expectations of many people across the globe. Now when our environment fights us back, we are forced to rethink and amend our ways of living to become more eco-friendly. A new trend hence was given birth in our endeavor to become eco-friendly which many define as '**Being Green**'. Some of the most popular ways existing businesses can go green include operating almost entirely online and allowing employees to telecommute. Other ways existing businesses can become greener include placing recycling bins in employee lounges or cafeterias, replacing paper towel dispensers with hand dryers, and using recycled paper.

### 2. Review of Literature

Early studies on green entrepreneurship have focused on three main aspects (Lenox and York, 2011). Firstly, the extent of reduction in environmental degradation by green entrepreneurial activity as compared to that of social movements, governments or existing firms (Larson, 2000; Anderson and Leal, 2001; Cohen and Winn, 2007; Dean and McMullen, 2007; Leca, Battilana and Boxenbaum, 2008; Pacheco, Dean and Sarasvathy S D, 2010). The backgrounds for this type of literature studies can be attributed to environmental economics, or institutional entrepreneurship. This approach focused on different aspects of remotely related questions, and hence the result is characterized as fragmented and inconclusive. The second aspect is on the motives inducing individuals to engage in green entrepreneurship (Keogh and Polonski, 1998; Pastakia, 1998; Linnanen, 2002; Choi and Gray, 2008; Kuckertz and Wagner, 2010; Schlange, 2010). These researchers point out that motivations of green entrepreneurs are partially differ from those of traditional entrepreneurs, as green entrepreneurs are to a certain extent motivated by both economic and environmental concerns. However, these studies do not examine the implications of these motivations on the process of green entrepreneurship. Rather, merely one study by Kuckertz and Wagner uses empirical techniques. So, the results are considered to be in a premature state. The third aspect is the role of private and public institutions for green entrepreneurship (Isaak, 1997; 2002; Russo, 2003; O'Neill, Hershauer and Golden, 2009; Sine and Lee, 2009; Meek, Pacheco and York, 2010). The literature from this researchers concerned with the questions of what may be inhibiting entrepreneurship and whether and how green entrepreneurship may be fostered. (Mahalia von Wallenberg Pachaly, 2012). The studies, however, examine a variety of specific policies and institutions and are mostly based on case studies in which a comparison of the results is difficult. A few existing empirical studies conducted are country specific and in the context of merely renewable energy industry. A study by Sine and Lee (2009) makes empirical studies on the issues of triggers to green entrepreneurships in U.S. wind energy industry. They find that the presence of large-scale social movements have a significant positive effect on the emerging green entrepreneurial activity. Their findings attribute to the fact that social movements propagate distinctive norms, values and regulatory structures. Although the studies from renewable energy sector provide, as per the literature study, first, interesting insights on the barriers and triggers to green entrepreneurship, they failed to provide a deeper understandings of the important matters for policy makers. An interesting theoretical contribution with respect to barriers to green entrepreneurship is made by Lennenen (2002). Lennenen states three kinds of barriers to overcome in order to succeed in introducing green products. The first barrier is the challenge of market creation. With respect to this barrier, Lennenen argument is that of the lack of environmental awareness among the general

population and that consumer behavior is only changing slowly (Meffert and Kirchgeorg, 1993). Further, he argues that consumers are not confronted with immediate direct effects of their environmentally-sustainable actions. The second barrier is the financial barrier. He identifies the mismatch between the green entrepreneurs need for finance, and investors search for trustable and promising ventures to invest in. The reasons quoted by Linnenen for the mismatch are; green entrepreneurs are unfamiliar with the investment community and thus struggle to obtain require funds but also and investors prejudices towards green entrepreneurs and their ability and willingness to act in the interest of investors. His argument is that the green ventures are not attractive to venture capitalists as the time for product development and commercial viability of the product exceeds the targeted investment horizon of venture capital. The third barrier identified by Linnenen is green entrepreneurs' ethical justification for existence. As Linnenen describes, many green entrepreneurs distinguish themselves by their distinct set of values, i.e their concern for the environment and their ethical reasoning. High ethical standard may have positive effects but complicate operations and attraction of capital may be troubled since investors usually define success of the venture in financial returns while the green entrepreneurs apply multi-dimensional success criteria. Linnenen, in his study, draws on his practical experience to suggest a framework for green entrepreneurship. Hence, the results can be more generalized than those resulting from other qualitative case studies with a more limited scope and also lack the quality of empirical results. Since hardly any literatures has been published so far on motivation and barriers to green entrepreneurship, particularly in Indian context, it could be asserted that conventional entrepreneurship might provide a starting point. However, it is reasonable to assume that the process of green entrepreneurship differs as green entrepreneurs are driven by a different set of motivations and set up slightly different types of business than other entrepreneurs (Lenox and York, 2011), and barriers faced by them also differ (Linnenen, 2002). On the survey of existing literature on green entrepreneurship it can be concluded that despite more attention given by scholars to green entrepreneurship in the recent past, overall number of academic literature examining green entrepreneurship is still very limited except few that applied econometric technique and remaining studies constitute theoretical contributions based on small number of case studies while some of the studies are country or region or industry specific and hence lack replicability. Further, it can be found that hardly any literature of empirical study in the Indian context. A further gap with in the areas of green entrepreneurship is almost unexplored and appears wide. Two of these areas ill-understood seem to be- one, motivation and the two, barriers to green entrepreneurship- may rightly be classified as crucial and of paramount importance to policy makers that seek to foster green entrepreneurship. Another important field that appears very relevant and interrelated with this is emerging entrepreneurs. Schaper (2005) had stressed not to neglect the domain of nascent (upcoming) green entrepreneurship. He advocates that this is essential for the advancement of green entrepreneurship field. This could be relevant in the sense that during this stage of entrepreneurship individuals reflect on their motivation, identify and evaluate business opportunities and define their business model, goals and ambitions. Hence, numerous gaps to be addressed by further research remain in the virgin field of green entrepreneurship research. Lenox and York (2011) state from their finding that more research is needed to arrive at a comprehensive understanding of the green entrepreneurship, specifically, motivations of green entrepreneurs, and how traditional entrepreneurs influence the perception of opportunities, and to what extent their passion and risk perception differ.

Hence, in the present work the researcher aims to study the motivations and barriers to green entrepreneurship. The study takes into account only Engineering and MBA graduates, those who have completed their education as well of those who are in the final semester. It can be justified the selection of the sample on the ground that these constitute the major portion of ambitious entrepreneurs whose education is oriented towards taking up of entrepreneurship as a career.

### 3. Contribution of the study

This study contributes in many ways to current literature. This paper contributes to the understanding of unexplored aspect of green entrepreneurship and its overall process. This paper identifies and analyzes the motivation and barriers to actual green entrepreneurship that are perceived by the graduates and thereby provides valuable insights on the subject. Further, this paper provides results that are valuable to policy makers. It also provides a suitable base for further research, particularly, in Indian context.

### 4. Research Objectives

The objectives of the study are –

- To conceptualize the term ‘green entrepreneurship’.
- To study the perception of emerging graduates who wish to become green entrepreneurs
- To study the perceived motivation of emerging green entrepreneurs
- To study the perceived problems of green entrepreneurship.
- To offer suggestions based on the research findings.

### 5. Hypothesis:

$H_{01}$ = Motivation for green entrepreneurship does not significantly differ when their parents are already entrepreneurs.

$H_{11}$ =Motivation for green entrepreneurship significantly differs in both the cases.

$H_{02}$ =No significant difference between the respondents as regards perceived problems are concerned.

$H_{12}$ =there is a significant difference between the respondents as far as perceived problems are concerned.

### 6.1. Research Methodology

Both primary and secondary data are used for this exploratory study. Primary data consists of responses collected from Engineering and MBA graduates who are in the final semester. Purposive sampling and snowball sampling method is used by conducting personal interview with the students residing in the hostels. MBA graduates from various colleges, engineering graduates from National Institute of Engineering (NIE), JCE, Mysore, and Malnad college of Engineering (MCE) Hassan. Data collected from these areas as the researcher is residing in these places. Snowball sampling enabled the researcher to collect in total from 115 MBA graduates and 115 Engineering graduates. Survey questions asked initially to know as to whether these graduates become entrepreneurship. When the answer is no and they are aiming to join employment rather, then the sample was dropped in the initial stage itself. Nearly 700 students including the alumni were distributed structured closed ended questionnaire. Data collected is finalized at 230 samples for the test.

Data collected was edited, codified and analyzed with the use of SPSS 16.0. Mean, standard deviation, chi square test, t-test were calculated to test the hypothesis.

**6.2. Data Analysis**

The general profile of the respondents is shown in Table 1. Out of the total respondents, 115 are engineering graduates and 115 MBA graduates. Among engineering graduates whose parents are presently in business, 53 percent and 32 percent whose parents are in employment, and 14.78 percent whose parents are neither entrepreneur nor in employment, willing to start green business. Among MBA graduates, 34 percent whose parents are entrepreneurs, 47 percent whose parents are in employment and 14.78 percent are others who wish to take up green projects. As responses considered only of those who said yes for the question and others are dropped from the list. 77 percent respondents aware the green business activity including wind energy, bio-fuel, eco-tourism, waste recycling, water recycling, energy efficient devices, e-administration etc while the rest of them aware only few of these as green ventures, majority of them know about corporate social responsibility and the dangers of global warming and climate change, hence they have concern over environment and aiming to become green entrepreneurs.

**Table. 1** General profile of respondents

3. Would you like to become a green entrepreneur?					
Education	Parents' Occupation	YES	NO		
		Count	Count	%	
ENGG	entrepreneur	61	0	53.04348	
	employment	37	0	32.17391	
	others	17	0	14.78261	
	<b>Total</b>	<b>115</b>	<b>0</b>	<b>100</b>	
MBA	entrepreneur	44	0	38.26087	
	employment	54	0	46.95652	
	others	17	0	14.78261	
	<b>Total</b>	<b>115</b>	<b>0</b>	<b>100</b>	

(Source: primary data)

For data analysis and testing the hypothesis, we have tested the reliability through Cronbach’s Alpha (Table 2). The value more than 0.60 which is considered to be reliable and value of the data in the present study is 0.805, which is more than 0.60, shows the homogeneity of items.

**Table 2. Reliability Statistics.**

Cronbach's Alpha	N of Items
.805	43

Factor analysis through which various factors of statements asked to the respondents are reduced to find out the important factors determine the motivation and barriers perceived by the respondents.

Before that, **Kaiser-Meyer-Olkin measure of sampling and Bartlett’s test of Sphericity** (Table 3) was applied. A high value which is above 0.5 to 1.0 generally indicates that a factor analysis may be useful with the data. As here KMO value is 0.879 on barriers and 0.667 on motivational factors which is more than 0.50, thus the results of factor analysis are useful with the present data.

**Table 3. KMO and Bartlett’s Test for Barriers and motivation**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.879
Bartlett's Test of Sphericity	Approx. Chi-Square
	6.435E3
	df
	153
	Sig.
	.000

**Table 4. KMO and Bartlett's Test For Motivations**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.667
Bartlett's Test of Sphericity	Approx. Chi-Square
	863.773
	df
	91
	Sig.
	.000

Table 6 shows important factors loaded in respect of barriers. Three factors are extracted under principal component method (Table 5). Factor item no.1 in the category of marketing barriers, is highlighted with highest percentage (0.952). According to this, graduates who are willing to take up green business perceive that *creation of market* for green business is the critical problem and which cause negative impact on emerging entrepreneurs. Among the second category, financial problems as perceived by graduates, time for product development and commercial viability of the product exceeds the targeted investment horizon of the venture capital (factor no.13). Majority of the respondents opine that investors may not invest funds in green business since it is not attractive for venture capitalists and very difficult to raise funds.

**Table 5.** Factor analysis for barriers to Green Entrepreneurs.

**Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.742	48.564	48.564	8.742	48.564	48.564	7.843	43.569	43.569
2	5.583	31.018	79.583	5.583	31.018	79.583	5.639	31.330	74.899
3	1.082	6.014	85.597	1.082	6.014	85.597	1.926	10.698	85.597
4	.901	5.008	90.605						
5	.265	1.472	92.076						
6	.222	1.235	93.312						
7	.207	1.152	94.464						
8	.176	.976	95.440						
9	.163	.906	96.346						
10	.127	.704	97.050						
11	.116	.642	97.692						
12	.099	.548	98.240						
13	.083	.461	98.701						
14	.076	.424	99.124						
15	.060	.336	99.460						
16	.044	.243	99.703						
17	.035	.192	99.895						
18	.019	.105	100.000						



**Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.742	48.564	48.564	8.742	48.564	48.564	7.843	43.569	43.569
2	5.583	31.018	79.583	5.583	31.018	79.583	5.639	31.330	74.899
3	1.082	6.014	85.597	1.082	6.014	85.597	1.926	10.698	85.597
4	.901	5.008	90.605						
5	.265	1.472	92.076						
6	.222	1.235	93.312						
7	.207	1.152	94.464						
8	.176	.976	95.440						
9	.163	.906	96.346						
10	.127	.704	97.050						
11	.116	.642	97.692						
12	.099	.548	98.240						
13	.083	.461	98.701						
14	.076	.424	99.124						
15	.060	.336	99.460						
16	.044	.243	99.703						
17	.035	.192	99.895						

Extraction Method: Principal Component

Analysis.

**Table 6:** Factor analysis for barriers to Green Entrepreneur with varimax rotated component matrix

**Rotated Component Matrix<sup>a</sup>**

	Component		
	1	2	3
<b>1. Creation of market is the highly challenging task for green entrepreneur</b>	-.089	<b>.952</b>	.011
2. In my opinion, lack of environmental awareness is the primary reason for marketing problems in green products	-.076	<b>.940</b>	-.022
3. Consumer behavior is changing very slowly towards green products.	-.069	<b>.926</b>	.035
4. Consumers are not confronted with the immediate direct effects of their environmentally sustainable actions	-.104	<b>.935</b>	.019
5. Image of the green product will not be attractive	-.125	<b>.910</b>	.031
6. Catching up would be a problem for green products	-.145	<b>.920</b>	.053
7. In my opinion it is very difficult to obtain required funds from the investors	<b>.935</b>	-.113	.153
8. Investors search for trustable and promising ventures to invest in rather than green projects	<b>.926</b>	-.096	.126
9. It is difficult to familiarize with the investment community	<b>.921</b>	-.110	.149
10. investors have the prejudice towards the ability and willingness of green entrepreneurs to act in the interest of investors	<b>.924</b>	-.100	.119
11. green ventures are not attractive to venture capitalists	<b>.901</b>	-.120	.152
12. Investors define success of the venture in financial returns only and therefore may not show interest in financing green business	<b>.903</b>	-.150	.170
<b>13. Time for product development and commercial viability of the product exceeds the targeted investment horizon of venture capital</b>	<b>.945</b>	-.115	.154
<b>14. In my opinion, it is very difficult to derive competitive advantage from green business</b>	.550	.304	<b>.695</b>
15. Existence of green entrepreneurship is not ethically justifiable	-.014	.243	<b>-.589</b>
16. High ethical standard may have positive effects	.555	.286	<b>.690</b>
17. High ethical standard is complicated one and therefore attraction of capital may be troubled	.561	.317	<b>.668</b>
18. Organizations have obligation to become more socially responsible	.949	-.117	<b>.129</b>

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Table 7: Factor Analysis of Motivational Factors with Principal Component Method

**Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.206	22.903	22.903	3.206	22.903	22.903	2.927	20.907	20.907
2	2.074	14.811	37.714	2.074	14.811	37.714	1.947	13.905	34.813
3	1.824	13.026	50.740	1.824	13.026	50.740	1.828	13.057	47.869
4	1.246	8.902	59.642	1.246	8.902	59.642	1.388	9.916	57.785
5	1.084	7.745	67.387	1.084	7.745	67.387	1.344	9.602	67.387
6	.834	5.957	73.344						
7	.746	5.329	78.674						
8	.604	4.315	82.988						
9	.528	3.773	86.761						
10	.446	3.187	89.948						
11	.418	2.987	92.935						
12	.404	2.884	95.819						
13	.302	2.160	97.979						
14	.283	2.021	100.000						

Extraction Method: Principal Component

Analysis.

From the literature study, several motivational factors are identified with special reference to Indian business scenario. Table 7 depicts extraction of five important factors, the total variance being 67.37 percent with the loss of only 33 percent of information of the loaded factors. Table 8 highlights those five factors with highest percentage. Majority of the respondents opine that government subsidy and required financial assistance might overcome financial troubles caused by low demand and low market for green products. Although majority of the respondents opine that environmental marketing is an opportunity to achieve it, investors' reluctance to invest in green ventures might hinder the green entrepreneurs' journey in saving environment by taking up green business activities. In spite of their sense of future marketing and financial hurdles they believe that green enterprises would be admired and respected for their best practices and deeds. Further, existing socio-ecological organizations and environmentalists' support always motivates green entrepreneurs marching. Moreover, graduates are confident that they can make use of their technical knowledge and expertise in the green business activities.

Table 8: Factor Analysis of Motivation for Green Entrepreneurship (with varimax Rotation)

**Rotated Component Matrix<sup>a</sup>**

MOTIVATION FOR GREEN ENTREPRENEURSHIP	Component				
	1	2	3	4	5
19. Environmental marketing is an opportunity to achieve it	-.183	.030	<b>.755</b>	-.086	.255
20. I stay away from building businesses from the unsecured, scared & non-renewable resources of Earth in order to remain self-sustained & independent	-.235	-.064	-.040	-.009	-.833
21. Every business must respect environment and socially responsible	-.112	-.184	-.156	.707	-.210
22. I believe the operational cost can be reduced in green entrepreneurship as compared to that of the non-green business	.704	-.310	-.117	.136	.122
23. Government subsidies and financial assistance will help overcome financial difficulties in green business	-.165	<b>.780</b>	.064	-.178	-.279
24. Loans may be available with better terms for sustainable business ventures	-.055	.702	.299	-.191	.208
25. Green business is an innovative method and that pays back for creativity	.690	.111	.298	.172	.136
26. Over the years, green businesses will be the need of the hour	.134	.760	-.272	.177	.144
27. I consider ecological awareness and environmental protection as business strategy	.469	-.233	.564	.185	.026
28. There will be better insurance terms that attract green investments	.709	.177	-.072	-.300	-.246
29. Environmental compliance will be easier for green entrepreneurs than the other business enterprises	.720	.034	-.239	.091	.269
30. I can utilize my technical expertise innovatively	.108	-.161	-.730	-.097	<b>.416</b>
31. Green enterprise will be more admired and respected for its best deeds	<b>.734</b>	-.082	-.048	-.113	.140
32. Social and environmental organizations will always support and recognise the green entrepreneurs	.120	.042	.212	<b>.760</b>	.201

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

**1.1. Hypothesis testing**

First hypothesis ( $H_{01}$ ) is tested by ONE-WAY ANOVA (Table 9) between motivation factors and parents' occupation. Calculated F values are less than the table value of 2.99. Hence, null hypothesis is accepted and can be inferred that there is no significant difference between the motivations to take up green projects whether their parents are entrepreneurs or others. Therefore, parents' occupation does not influence.

**Table 9: ANOVA of motivational factors and parent’s occupation**

**ANOVA**

		Sum of Squares	df	Mean Square	F	Sig.
19. Environmental marketing is an opportunity to achieve it	Between Groups	1.649	2	.825	.836	.435
	Within Groups	223.811	227	.986		
	Total	225.461	229			
23. Government subsidies and financial assistance will help overcome financial difficulties in green business	Between Groups	.684	2	.342	.347	.707
	Within Groups	223.403	227	.984		
	Total	224.087	229			
30. I can utilize my technical expertise innovatively	Between Groups	.601	2	.300	.213	.809
	Within Groups	320.830	227	1.413		
	Total	321.430	229			
31. Green enterprise will be more admired and respected for its best deeds	Between Groups	1.894	2	.947	.779	.460
	Within Groups	275.936	227	1.216		
	Total	277.830	229			
32. Social and environmental organizations will always support and recongise the green entrepreneurs	Between Groups	.826	2	.413	.370	.691
	Within Groups	253.370	227	1.116		
	Total	254.196	229			

(Source: primary data)

(Table value of F @5% level of significance=2.99, df-2)

The second hypothesis ( $H_{02}$ ) that there is no significant difference between the graduates as far as barriers perception is concerned. The hypothesis is tested by ONE WAY ANOVA (Table 10). As the calculated value of F is less than the Table value (3.84), null hypothesis is accepted.

**Table 10: ANOVA of barriers and Graduates**

**ANOVA**

		Sum of Squares	df	Mean Square	F	Sig.
1. Creation of market is the highly challenging task for green entrepreneur	Between Groups	2.300	1	2.300	1.153	.284
	Within Groups	454.661	228	1.994		
	Total	456.961	229			
13. Time for product development and commercial viability of the product exceeds the targeted investment horizon of venture capital	Between Groups	3.657	1	3.657	1.711	.192
	Within Groups	487.391	228	2.138		
	Total	491.048	229			
14. In my opinion, it is very difficult to derive competitive advantage from green business	Between Groups	8.039	1	8.039	3.134	.078
	Within Groups	584.783	228	2.565		
	Total	592.822	229			

(Source: primary data)

(Table value of F@ 5% level of significance =3.84)

**7. Suggestions and Conclusions**

From the study it is found that newly educated graduates who wish to become entrepreneurs are curious of green business opportunity. Their worry is marketing for green products and financial assistance required for their innovative business propositions. However, they see the opportunity in newly upcoming green business and environmental concern, social and ethical values that should be imbibed into the enterprises, thereby achieving organizational and societal objectives for sustainable development of the economy. It is the policy makers, who address the problems of the green business enterprises financially, and conducive government policy and support in the form of tax holiday, concession, and subsidy, technical and financial support along with suitable environmental regulations that induce business community. At the academic level it is utmost important to include, educate and train graduates oriented towards pollution free business and activities that mitigate environment degradation problems.

The study is conducted by reviewing existing literature in foreign context. Factors of motivation and barriers to become green entrepreneurs have been identified. Perception of the final year and alumni graduates have been collected through structured questionnaire. We have tested the hypothesis through factor analysis and ANOVA and found that there is no significant difference between graduates as far as motivation is concerned even their parents are entrepreneurs and no difference between MBA and Engineering graduates in the perception of problems and barriers. Policy makers should work towards model that helps environmental protection not only by proper regulations but also through education, training, financial support that solve marketing and related problems of green entrepreneurs. There by the strength of green business shall be enhanced and maintained for the sustainable future. The study has the limitation of small sample and not on the practicing entrepreneurs, rather on the prospective entrepreneurs. Hence, there is a scope for further research and there is still a wide gap to be filled in the literature, and we recommend the research on existing green business organizations.

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