Journal of Asia Entrepreneurship and Sustainability

Refereed Edition

Print: ISSN 1177-4541
On-Line: ISSN 1176-8592
www.asiaentrepreneurshipjournal.com

Volume XIV, Issue 2, October 2018

RossiSmith Academic Publishing

Table of Content

Volume XIV, Issue 2, October 2018

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Influence of Gender and Academic Qualification on Entrepreneurial Intentions among Students

Kalaa Chenji, S. Raghavendra, Laila Memdani

ICFAI Business School (IBS), Hyderabad, The ICFAI Foundation for Higher Education (IFHE) (Deemed to be university u/s 3 of the UGC Act 1956)
Hyderabad-India

Abstract

The purpose of this paper is to study the impact of gender and academic qualifications on entrepreneurial intentions of students as a career choice. The data was collected from 257 students at undergraduate and postgraduate levels in a leading business school in India. Chi square test and t-test were used to examine the influence of gender and academic qualification on intentions of entrepreneurship of students. The results reveal three key outcomes, firstly, it establishes that substantial minority of graduates consistently hold entrepreneurship intentions. Secondly, despite the considerable effort put in by authorities in minimizing gender gap, bias amongst men and women in intentions of entrepreneurship continues to exist. Women seem to lag behind in their efforts

to intent to start their own business and resort to other occupational choices. The paper attempts to unearth the gender gap in the intentions of entrepreneurship. Finally, the paper highlights the importance of educational qualification on entrepreneurial intentions.

Introduction

Significant harmony subsists about the magnitude of endorsing entrepreneurship in both developed as well as developing countries. In developed countries entrepreneurship has been accepted as a means to incite modernization and industrial progress, stimulate competition and generate employment leading to growth and affluence (Holmgren and From 2005). In developing countries governments see entrepreneurship as a way to kindle economic development and tackle serious economic and social challenges. So, how can young people be encouraged to become entrepreneurs? The answer requires understanding of factors that determine intentions of entrepreneurship. Entrepreneurial intentions has, therefore, been a topic of substantial research for several years fueled. The investigation on entrepreneurship has widely taken its respectable place worthy of intellectual pursuit at education level in research and learning (Rushing, 1990). In the present day arena, higher educational qualification plays a crucial role in producing huge number of graduates who seek to endorse self or small business

employment as a sensible livelihood opportunity (Nabi and Holden, 2008). Further, academicians endeavor to prepare students for a dynamic scenario by broadening learning beyond educational boundaries. (Shinnar R Pruett, M and Toney B). The Global Entrepreneurship Monitor, Turkey, 2010, Report, 2011) expressed that the young generation have attained higher levels of education to prosper in the opportunity-driven entrepreneurship environment and better career choices. The survey revealed people with high educational qualifications aim at choice-driven entrepreneurship and not necessity-driven entrepreneurship. A study conducted by (Ettl and Welter, 2010), (Greer and Greene, 2003); (Langowitz and Minniti, 2007) suggested that research on women entrepreneurship has gained more importance in 1990s. Further, empirical research reveals that women entrepreneurship is remarkably lower than that of men and the proportion of women entrepreneurs is half of that of men (Acs eta al., 2005, Gupta et al, 2014). In the light of this typology, the present paper focuses on the impact of gender and (K. Ettl (2010),)academic qualification on entrepreneurship intentions.

The aim of the study is to examine the influence of gender and academic qualification on entrepreneurial intentions among undergraduates and postgraduates in a leading business school. The paper proceeds with review of literature addressing entrepreneurial intentions comprehensively. The methodology

used and estimation of results are elaborately explained. The study concludes with the discussion of the results analyzed and scope for future research.

Literature Review

The study of entrepreneurship intentions has been one the most sought after topics of research among students. Many researchers conducted enormous research on demographic factors influencing entrepreneurship (Wang and Wang, 2004). Of the demographic factors, it is observed that gender and academic qualification play a crucial role in influencing an individual's intention towards entrepreneurship. Gupta et al. (2008, 2009) studied the role of gender on entrepreneurial intentions and found no significant differences between overall potential of men and women. The study of 5000 adolescent students conducted by Kickul et al., (2008) revealed significant difference in entrepreneurial intention between male and female students and the mean score of male students was observed to be higher than that of female students. In a study on Indian university students Bhandari (2006) established that lead and luck are the significant factors for entrepreneurial intentions. Gurol and Atson (2006) found that qualities like higher risk taking propensity, internal locus of control and higher need for achievement and innovativeness were required for higher entrepreneurial intention. Lee et al., (2006) pointed out entrepreneurship education depended on custom-made advances based

on exclusive cultural framework. Wilson, Kickul and Marline (2007) explored the influence of gender on entrepreneurial career choice and self-efficacy. The results of the study proved that the influence of entrepreneurial education in MBA programs on self-efficacy is stronger for women than men. Gerry, Marques and Nogueira (2008) in their study identified profound impact of gender and academic training on entrepreneurial intentions. Koellinger et al., (2007) suggested that perceptual factors play an important role in elucidating the differences in the entrepreneurial intentions of men and women. Though gender gap is said to persist in entrepreneurial intentions, recent empirical research has not found significant differences in men and women (Trevelyan, 2009). Yordanova and Tarrazon (2010); Wilson eta al., (H.Zhao 2005) found that perceptual factors may play a crucial role in determining the relationship between gender and entrepreneurial intentions. Fisher et al., (1993); Yordanova and Tarrazon (2010) explained the influence of social feminist theory (SFT) on entrepreneurial intentions as the perspective of men and women differs as per their socialization processes and experiences. The SFT suggests that the decisions taken by men and women differ on the basis of experiences, socialization and elements of psychological and philosophical theories about differences in men and women (Greer and Greene, 2003). Research reveals that women tend to focus on work-family balance and contribution to economic growth may shrink to that extent (Jennings and

McDougald, 2007; Kepler and Shane, 2007). Further, important differences are found between certain personality traits between men and women (Fischer et al., Robb and Watson, 2012). From the literature review it can be concluded that SFT reveals direct impact of gender on intentions of entrepreneurship (Routamaa et al., 2004; Veciana et al, 2005). It is clear from the research evidence that women lack behind in the intentions of entrepreneurship when compared to men (Gatewood et al., 2002; Malach-Pines and Schwartz, 2008; Veciana et al., 2005; Wilson et al., 2009). After elaborate scrutiny of review of literature review on influence of gender and academic qualification on entrepreneurial intentions the following hypotheses was formed.

Hypothesis 1: There is a positive relationship between gender and entrepreneurial intentions.

Hypothesis 2: There is a positive relationship between academic qualification (Graduates and Post Graduates) and entrepreneurial intentions.

Methodology

Previous research on entrepreneurial intentions and theoretical background disclose that studying the influence demographic factors like gender and academic qualification was easy to classify with but difficult to examine. Survey method was

used to gather data. Zikmund, Babin, Carr, & Griffin, (2013) explained that questionnaire method is one of the most efficient and inexpensive, swift method of data collection. The aim of the paper is to find the influence of gender and academic qualifications on entrepreneurial intentions for which a purposive judgmental sampling design is utilized (Cavana et al, 2000, p. 263). The sample comprised of post graduates and undergraduates business school students as they constitute the future leaders and to a great extent form the human capital of the nation. A questionnaire is administered among 200 students to obtain relevant data of which 157 usable responses were received and used for data analysis.

The questionnaire for measuring influence of gender and academic qualification on entrepreneurial intentions was constructed using notions resulting from existing literature forming a methodological contribution. The internal consistency and reliability of each construct in the study is assessed by testing the Cronbach α (Cavana et al 2000, p.211). The Cronbach alpha of all variables is found to be reliable above 0.70 ((Hair 2006)pp 137-139, Nunnally, 1967 p. 226 cited in Peterson, 1994).

Findings and Implications

In order to identify the influence of gender and academic qualification on entrepreneurial intentions, Chi Square Test and T-Test were conducted. Chi Square

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Test was conducted to study the influence of gender on entrepreneurial intentions. It is revealed that gender had no influence on entrepreneurial intentions. Table – I and Table – II depict Chi square test revealing that there is no significant difference between gender and entrepreneurial intentions.

Table – I

Chi square Test for Gender

Gender * EIMEAN Cross tabulation

			EIMEAN									Total
			1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	
Gender	Male	Count	0	1	3	2	21	10	14	13	28	92
		Expected Count	1.2	2.3	4.7	3.5	22.9	11.1	14.1	10.0	22.3	92.0
	Female	Count	2	3	5	4	18	9	10	4	10	65
		Expected Count	.8	1.7	3.3	2.5	16.1	7.9	9.9	7.0	15.7	65.0
Total		Count	2	4	8	6	39	19	24	17	38	157
		Expected Count	2.0	4.0	8.0	6.0	39.0	19.0	24.0	17.0	38.0	157.0

Table - II

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.184[a]	8	.077
Likelihood Ratio	15.186	8	.056
Linear-by-Linear Association	12.402	1	.000
N of Valid Cases	157		

a. 8 cells (44.4%) have expected count less than 5. The minimum expected count is .83.

The Chi square test for gender is insignificant as minimum expected count for Chi square is 0.83 and the calculated values are below 0.83. Table III and IV depict t-test for gender.

Table – III

T test for Gender

Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
EIMEAN	Male	92	3.9674	.92227	.09615
	Female	65	3.3846	1.06349	.13191

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Table – IV

T- Test for Academic Qualification

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
EIMEAN	Equal variances assumed	.583	.446	3.659	155	.000	.58278	.15928	.26813	.89742
	Equal variances not assumed			3.570	125.217	.001	.58278	.16323	.25972	.90583

It's clear from above that gender and entrepreneurship as not related as t-test conducted proved to be insignificant. Therefore, gender does not influence entrepreneurship intentions. Table V and VI depict T-Test conducted to study the influence of academic qualifications viz graduation and post-graduation on entrepreneurial intentions. The results revealed that academic qualifications of students does not influence entrepreneurial intention, as no difference was found between graduates and post graduates. The results of T-Test revealed p-values greater than 0.05 the null hypothesis of equality of means is accepted which means that EI does not change with educational level. It is found that entrepreneurial

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

intentions for both graduate and post graduates are equal. Tables VII and VIII depict the Chi-square test for academic qualification and entrepreneurship intentions. It is revealed that the calculated values are far below minimum expected value (0.64). Therefore, the results reveal that academic qualifications like graduation and post-graduation do not influence entrepreneurship intentions.

Table – V

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
EIMEAN	Equal variances assumed	.583	.446	3.659	155	.000	.58278	.15928	.26813	.89742
	Equal variances not assumed			3.570	125.217	.001	.58278	.16323	.25972	.90583

Table –VI

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
EIMEAN	Equal variances assumed	.171	.680	1.327	155	.187	.24369	.18369	-.11917	.60654
	Equal variances not assumed			1.277	67.993	.206	.24369	.19089	-.13723	.62460

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Table –VII

Academic Qualification

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.252[a]	8	.140
Likelihood Ratio	12.751	8	.121
Linear-by-Linear Association	6.167	1	.013
N of Valid Cases	157		

a. 7 cells (38.9%) have expected count less than 5. The minimum expected count is .64.

Table - VIII

Parent's Educational Qualification * EIMEAN Crosstabulation

			EIMEAN									Total
			1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	
Educational Qualification	Graduate	Count	2	1	4	3	23	15	16	12	31	107
		Expected Count	1.4	2.7	5.5	4.1	26.6	12.9	16.4	11.6	25.9	107.0
	Post Graduate	Count	0	3	4	3	16	4	8	5	7	50
		Expected Count	.6	1.3	2.5	1.9	12.4	6.1	7.6	5.4	12.1	50.0
Total		Count	2	4	8	6	39	19	24	17	38	157
		Expected Count	2.0	4.0	8.0	6.0	39.0	19.0	24.0	17.0	38.0	157.0

Conclusion and Discussion

The study aims to find the impact of two demographic factors gender and academic qualifications on entrepreneurial intentions among graduate and post graduate students in a leading business school in South India using Chi-square test and T-Test. The study was conducted among 157 students using questionnaire method. Results of the study revealed that gender had no influence on entrepreneurial intentions. Chi-square test conducted to find influence of gender on entrepreneurial intentions proved to be insignificant. Previous review of literature proved that men and women differ in the nature of intentions of entrepreneurship. Women might take fewer risks (Watson and Robinson, 2003) due to several experiences and social processes (Carter and Williams, 2003). Men are proved to be risk-taking while women are considered more conservative and risk averse (Powell and Ansic 1997). Roszkowski and Grable (2005) conducted a study and found that men are more risk tolerant and women are less tolerant. Daiz et al (2010) opined that fear of failure on entrepreneurial intentions of men and women are not conclusive and remain insignificant once they are established as entrepreneurs. On the other hand, results of Chi-square test and T-Test conducted on academic qualifications reveal that entrepreneurial intentions are not influenced either at graduation or at post-graduation levels. The study revealed that academic qualification remained insignificant to intentions of students towards entrepreneurship. It can be

concluded that demographic factors like gender and academic qualifications definitely influence entrepreneurial intentions.

References

A. Malach-Pines, D. Schwartz, 2008. "Now you see them, now you don't: gender differences in Entrepreneurship." *Journal of Management Psychology*, 23 (7), 2008: 811-832.

Bhandari, N.C. (2006). "Intention for entrepreneurship among students in India." *The Journal of Entrepreneurship*, 2006: 169-179.

C.K. Wang, P.K. Wong. "Entrepreneurial interest of university students in Singapore." *Technovation*, 24 (2),2004: 163-172.

Carter, S.L. and Shaw, E. and Lam, W. and Wilson, F. (2007). " Gender,entrepreneurship, and bank lending : the criteria and processes used by bank loan officers in assessing applications." *Entrepreneurship Theory and practice, 31 (3)*, 2007: 427-444.

Cavana, R. Y., Delahaye, B. L., & Sekaran, U. (2001). "Applied Business Research: Qualitative and Quantitative Methods (1st ed.)." *US & Australia: John Wiley & Sons Australia, Ltd* , 2001.

E. Kepler, S. Shane, 2007. "Are Male and Female Entrepreneurs Really that Different?" *Small Business Administration, Office of Advocacy,* , 2007.

Education, Entrepreneurship and. "In Entrepreneurhship Education:current developments, future directions,." *New York, Quoro Books*, 1990: 29-39.

F. Wilson, J. Kickul, D. Marlino, 2009. "An analysis of the role of gender and self-efficacy in developing female entrepreneurial interest and behaviour." *Journal of Development Entpreneurship, 15 (03)*, 2009: 105-119.

F.Wilson, J.Kickul, D.Marlino, S.D.Barbosa, M.D.Griffiths (2009). "An analysis of the role of gender and self-efficacy in developing female entrepreneurial interest and behaviour." *J. Dev. Entrep, 14 (2)*, 2009: 105-109.

Fisher, R. J. (1993). "Social desirability and the validity of indirect questioning." *Journal of Consumer Research, 20*, 1993: 303-315.

Gatewood, E.J., Shaver, K.G. and Gartner, W.B. (1995). "“A longitudinal study of cognitive factors influencing start-up behaviours and success at venture creation”." *Journal of Business Venturing, Vol. 10 No. 5,*, 1995: 371-91.

Gerry, C., Marques, C.S. and Nogueira, F. (2008). " Tracking student entrepreneurial potential: personal attributes and the propensity for business start-ups after graduation in a Portuguese university. ." *Problems and Perspectives in Management*, 2008, 6 (4),: 46-54.
Gupta, VK, Turban, DB, Bhawe, NM (2008). "The Effect of gender stereotype assimilation and reactance on entrepreneurial intentions." *Journal of Applied Psychology*, 93(5), 2008: 1053–1061.
Gupta, VK, Turban, DB, Wasti, AA. (2009). "The role of gender stereotypes in perceptions of entrepreneurs and intentions to become an entrepreneur." *Entrepreneurship Theory and Practice* , 33(2), 2009: 397–417.
Gurol, Y. & Astan, N. (2006). "Entrepreneurial characteristics among university students: Some insights for entrepreneurship." *Education and Training, 48(1)*, 2006: 25-38.
H.Zhao, E.S.Scott, G.E.Hills. "The mediating role of self-efficacy in the development of entrepreneurial intention." *J. Appl. Psychol., 90 (6)* , 2005: 1265-1272.
Hair, J., Black, W., Babin, B., Anderson, R., & Tatham, R. (2006). "Multivariate data analysis (6th ed.). ." *Uppersaddle River, N.J.: Pearson Prentice Hal*, 2006.
J. Watson, S. Robinson. "Adjusting for Risk in Comparing the Performance of Male- and Female- controlled SMEs." *Journal of Business Venturing, 18 (6)* , (2003),: 773-788.
J.C. Díaz, R.H. Mogollón, M.C. Sánchez-Escobedo, M.V. Jiménez. "Actividad emprendedora y género: un estudio comparativo." *Revista Europea de Dirección y Economía de la Empresa, 19 (2)* , 2010: 83-98.
J.E. Jennings, M.S. McDougald. "Work-family interface experiences and coping strategies: implications for entrepreneurship research and practice." *Academics Management Review, 32 (3)*, 2007: 747-760.
K. Ettl, F. Welter. "Gender, context and entrepreneurial learning." *nt. J. Gender Entrep., 2 (2)*, (2010),: pp. 108-129.

Kickul, Jill, Fiona, Wilson et al. (2008). "Are misalignments of perceptions and self-efficacy causing gender gaps in entrepreneurial." *Journal of Small Business and Enterprise Development,* , 15(2), 2008: 321-335. .
Koellinger, Philipp, Maria Minniti, and Christian (2007) Schade. " "I think I can, I think I can".Overconfidence and entrepreneurial behavior." *Journal of Economic Psychology*, 2007: 502–527.
Lee, S.M., Lim, S., Pathak, R.D., Chang, D. and Li, W. (2006),. ""Influences on students attitudes toward entrepreneurship: a multi-country study",." *The International Entrepreneurship and Management Journal, Vol. 2 No. 3,*, 2006: 351-66.
M. Levesque, M. Minniti. "The effect of aging on entrepreneurial behavior." *J. Bus. Venturing,* , 37 (2) (1994),: 323-349.
M. Powell, D. Ansic (1997). "Gender differences in risk behaviour in financial decision making: an experimental analysis." *Journal of Economic Psychology*, 1997: 605-628.
M.J. Greer, P.G. Greene. "Feminist theory and the study of entrepreneurship." *New Perspectives on Women Entrepreneurs, IAP, Greenwich,*, CT (2003): 1-24.
M.J. Roszkowski, J. Grable. "Gender stereotypes in advisors' clinical judgments of financial risk tolerance: objects in the mirror are closer than they appear." *Journal of Behavioral Finance*, 2005: 181-191.
Nabi, G. and Holden, R. (2008). "Graduate entrepreneurship: Intentions, education and training." *Education and Training, Volume 50, No. 7*, 2008: 545-551.
Nunnally, J. C. (1967). "Psychometric Theory. New York:." *McGraw-Hill.*, 1967.
Robb, A.M., and Watson, J. 2012. " Gender differences in firm performance: Evidence from new ventures in the United States." *Journal of Business Venturing 27(5):*, 2012: 544–558. .
Routamaa, V. and Miettinen, A. (2006). "'Knowing Entrepreneurial Personalities: A Prerequisite for Entrepreneurial Education." *International Journal of Entrepreneurship Education,* , 2006, Vol. 23, No.4: 45-57. .

Shinnar R. Pruett, M and Toney, B (2009). "“Entrepreneurship education: attitudes across campus”,." *Journal of Education for Business, Vol. 84 No. 3*, 2009: 151-8.
Shinnar, R., Pruett,M., & Toney,B., (2009). "“Entrepreneurship Education: Attitudes Across Campus”,." *Journal of Education for Business, Heldref Publications.*
Trevelyan, R. (2009). "Entrepreneurial attitudes and action in new venture development. ." *International Journal of Entrepreneurship and Innovation, Vol.10, No.1*, 2009: 21-39.
V.K. Gupta, A.B. Goktan, G. Gunay. "Gender differences in evaluation of new business opportunity: a stereotype threat perspective." *J. Bus. Venturing,* , 29 (2) (2014): 273-288.
Veciana, J. M, Aponte, M. and Urbano, D. (2005). "‘University Students’ Attitudes towards Entrepreneurship: A Two Countries Comparison’,." *International Entrepreneurship and Management Journal, Vol. 1,*, 2005: 165-182.
Yordanova and Tarrazon, 2010. "Gender differences in entrepreneurial intentions: evidence from Bulgaria." *J. Dev. Entrep., 15 (03)*, 2010: 245-261.
Z. Acs, P. Arenius, M. Hay, M. Minniti. "Global Entrepreneurship Monitor 2004 Executive Report." *London Business School*, 2005.
Zikmund, W., Babin, B., Carr, J. and Griffin, M. (2013). "Business Research Methods." *A South-Asian Perspective (8th edition)*, 2013: New Delhi: Cengage Learning India Private limited.

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

To study the Factors effecting Purchase of Green products and their relation to the Purchase decision of Green products for Generation Z in India

Jaspreet Kaur, Varun Duggal, Sarbani Suri
jaspreetkb@rediffmail.com

Pearl Academy, Block A A-21/13 Near Shadipur Metro Station, Naraina Industrial Area Phase 1, Phase II, New Delhi, Delhi 110028, India

Abstract

The research paper aims to analyze the factors effecting purchase of Green products in India and its relation to purchase intention of the Generation Z for Green products. A descriptive study was conducted to list the major factors which effect the purchase intention of the Generation Z when it comes to Green products. The research tool used for data collection is Questionnaire through a survey.A conceptual model was constructed based on the past review of literature. A sample of 350 Indian consumers of Generation Z were selected. The final

analysis of the data has been done with the help of the structural equation modelling technique and CFA technique.

Introduction

In today's world corporations are feeling the pressure to go green, and that's a good thing for the environment.This research paper stresses on the factors effecting purchase intention among Generation Z Indian consumers. The same has been examined through constructing a conceptual model for the factors effecting the purchase decision of Green products among the Generation Z consumers of India. The members of the newest generation, Generation Z, are the new target markets of many companies in the short-run. Hence, it is interesting to find out insights on how generation Z behaves when making a purchase decision for a green fashion product and to what extend does their characteristics affect the factors that trigger a purchase decision.

The major objectives of the research are to explore the major factors effecting the purchase decision of the Indian Generation Z in India while purchasing Green products.

Review of literature

Consumer behavior

Consumer behavior is a process and is a vital part of marketing (Solomon, Bamossy & Askegaard, 2006). It is defined as:

"The study of individuals, groups, or organizations and the processes they use to select, secure, use, and dispose of products, services, experiences, or ideas to satisfy needs and the impacts that these processes have on the consumer and society" (Hawkins & Mothersbaugh, 2010 pp. 6).

Consumer behavior is ''the behavior that consumers display in searching for, purchasing, using, evaluating, and disposing of products and services which they expect to meet their needs'' (Schiffman LG, Kanuk LL 2010)

Environmentally sustainable clothing consumption includes clothing consumption behavior (acquisition, storing, using, maintaining, and discarding) which is environmentally preferable to mainstream clothing consumption behavior because the intent of engaging in the behavior is: (1) to create less pollution and waste and/or (2) to consume fewer natural resources (Connell KYH 2011)

Consumer behaviour represents all decisional acts taken at individual or group level, directly connected with obtaining and using goods and services, for the satisfaction of current and future needs, including the decisional processes that precede and determine the buying decision. (Cătoiu, 2004)

Consumers do not act and behave in the same matter in all industries, especially not in fashion consumer behavior (Strähle, 2017). Throughout history, many designers tried to dictate fashion, although in the 21st century designers and retailers try to satisfy their needs and wants instead of deciding what people should like and/or dislike (Diamond & Diamond, 2013). As mentioned before, to know what the consumers want, it is important to know what motivates the consumers (Diamond & Diamond, 2013). In the fashion industry, the producers and retailers need to be prepared and pay attention to the consumers needs and wants in order to be prepared to meet the difficulties in the industry (Diamond & Diamond, 2013). As motivation is highly discussed in consumer behavior, there are different motivations behind behavior in different industries. According to Strähle (2017) fashion consumers often buy clothing due to the emotional need. According to history, many fashion consumers have selected clothing based on the name of the designer, which is emotionally motivated (Diamond & Diamond, 2013). For example, jeans used to be a practical garment used by workers and

chosen rationally by consumers, but along came Calvin Klein and changed that fact, and the designer jeans market was born (Diamond & Diamond, 2013).

Green product purchase decision

A green product is defined as "a product that was manufactured using toxic-free ingredients and environmentally-friendly procedures, and which is certified as such by a recognized organization" (Gurau and Ranchhod, 2005). Greening of a product takes place over its complete life cycle from product design and raw material procurement to manufacturing, storage, transportation, usage and post-usage activities. Many of the researchers like D'Souza et al. (2006) have addressed consumption aspects of green products across their life cycles.

Strauss & Howe developed the Generational Theory in 1991. Accordingly, Generation Z is born post 1995". Each generation has unique expectations, experiences, generational history, lifestyles, values, attitudes, worldviews, styles of consumption, and demographics that influence their buying behaviors (Williams, 2011, p.1; Levickaite, 2010, p. 171; Gardiner & King, 2014, p.706; Groapa & Caescu, 2014, p.65). Therefore, generational cohorts can be considered as major market segments (Levickaite, 2010, p.174; Hume, 2010, p.387).

Even when they do share a set of values and common cultural experiences when growing up, people who belong to the same age group can differ in many ways (Solomon et al., 2016). Although it is clear that a shift in consumer values is occurring, there has not been substantial empirical research to find out how this motivational process works (Freestone & McGoldrick, 2008).

Green consumers are described as the people who consider the environmental consequences of their consumption patterns, and intend to modify their purchase and consumption behavior for reducing the negative affects on environment. Purchase decisions of green consumers are taken as the central theme in the present state of research on the factors that influence green consumer behaviour. (Albayrak et al., 2013; Schlegelmilch et al., 1996)

Every time someone makes a decision about whether (or not) to purchase a product or service there is the potential for that decision to contribute to a more or less sustainable pattern of consumption. Each purchase has ethical, resource, waste and community impact implications. When individuals consider the adoption of sustainable lifestyles, they engage with an increasingly complex decision-making process. These every day decisions on practical environmental or ethical solutions often result in trade-offs between conflicting issues and result in a motivational and practical complexity of green consumption. (Moisander, 2007).

The purchase decisions of green consumers are influenced by some factors. One set of factors being consumers realization of their environmental responsibilities, quest for gaining knowledge, self-interest and willingness to act for resource conservation and reduced impact on the environment. And, the others which are related to, social influence of consumers and product value (such as product quality, performance, price, advertisement and impact on human health). The actual behaviour is a result of consumers' regular habits, their product knowledge and the situational factors such as promotional campaign (Vermeir and Verbeke, 2004).

Conceptual model

The consumer usually searches his or her memory (the psychological field) before seeking external sources of information regarding a given consumption related need. Past experience is considered an internal source of the consumer is likely to need to reach a decision. Many consumer decisions are based on a combination of past experience, marketing and non-commercial information (Schiffman & Kanuk, 2004).

Factors affecting Green product purchase decision

Demographic Factors

From different prior studies it can be concluded that demographic variables have a significant impact on the consumers' pro-environmental/green purchasing behavior. Harris et.al (2000) notified that the environmental conscious consumers are white, female, professional and younger. Kollmuss and Agyeman (2002) indicated the demographic factors to be one of the most influencing factors in pro-environmental behavior. Hustad and Pessemier (1973) found that women's education level has to be high to become consumerist/environmental conscious consumers. Webster (1975) also found that socially conscious consumers typically are female. According to Knauer (1971), consumers who most often report deception and misrepresentation are high income women. Ruiz, Arcas and Cuestas (2001) argued that gender plays an important role to be consumerists and environmental conscious consumers. Berkowitz and Lutterman (1968) and Bourgeois and Barnes (1979) agree on the consumerists/environmental conscious consumers to be better educated and younger.

Price

Consumer behavior towards being environmentally friendly and purchasing of green products is not equally predicted, as the behavior of "buying environmentally friendly product is not a good predictors of consumers' willingness to pay more for green products (Laroche, et al., 2001).

Purchase Intention

Intention is the cognitive representation of a person's readiness to perform a given behavior, and the best predictor of behavior is intention. (Sethi,Kaur,Wadera 2017) According to the Theory of Reason Action, the stronger the intention of an individual to perform a particular behavior, the greater the particular behavior will be performed (Ajzen, 1991).

Eco label

Eco-labelling or eco-certification informs consumers about the green characteristics of the product and motivates them to purchase green products (Young et al., 2010). However, it has been found in two studies (Table 3) that consumers do not trust the information provided and remain skeptical towards the manufacturing, labelling and certification procedures of various products (Nittala, 2014).

Media

The media may change consumers' purchasing habits and disposal decisions; they should provide more information to encourage sustainable consumption in fashion clothing by increasing consumers' awareness (Birtwistle and Moore, 2006). Recent research demonstrated that the fashion media enjoys great influence on early fashion compared to younger fashion followers who are willing to pay much more every month on purchasing garments and are influenced by celebrities (Paolo, et al., 2009).

Social influence

The social influence refers to the effects of the social environment on consumers green purchasing behavior. That is, how much the person gain knowledge about green products through his/ her family, how much s/he discusses in the field of environmental products with his/her friends and how much he / she shares the information about green products with family (Finisterrado Paço & Raposo , 2004).

Altruism

Altruism is a subset of pro-social behavior, Schwartz' (1977) theory of altruism suggests that pro-environmental behavior becomes more probable when an

individual is aware of harmful consequences to others and when that person takes responsibility for changing the offending environmental condition. Vice versa, pointing to the detrimental influence of individualism in this context, Borden and Francis (1978) hypothesize that: Persons with a strong selfish and competitive orientation are less likely to act ecologically; People who have satisfied their personal needs are more likely to act ecologically because they have more resources (time, money and energy) to care about bigger, less personal social and pro-environmental issues.

Perceived Consumer Effectiveness (PCE)

Perceived Consumer Effectiveness (PCE) refers to the extent to which individuals believe that their actions make a difference in solving a problem (Ellen, Weiner and Cobb- Walgren, 1991).

Brand image

Brand image is related to a consumer's perception on the image of the products with green labels or images. A brand image common to a consumer's eye can help companies to introduce new brands and improve sales of existing brands (Markwick and Fill 1997). Consumers are less likely to purchase green products if they are unfamiliar with the brand (Glegg et al. 2005).

Information

Empirical evidence shows that consumers difficulty in locating environmentally directed products is partly due to a lack of information (Brown and Wahlers, 1998). when this information about green product becomes available, it usually turns into knowledge to the consumers.

Transparency

By labeling a product with a sustainable label, it makes the product stand out among competitors but does also function as an information tool that spreads knowledge and awareness about sustainability. (Bjørner, Hansen, & Russell, 2004); It also increases transparency, which gives consumer an insight in a product's production and is also shown to affect consumers purchasing behavior. The use of sustainable labels helps consumers save time when looking for sustainable information and increases sales of sustainable products (Thøgersen, Haugaard & Olesen, 2010).

Environmental friendliness of companies

Since last decades, environmentally conscious consumers have been demanding companies to address environmental issues, and to design their products and processes with lesser impact on the environment (Gadenne et al., 2011). So,

companies design products which are less harmful to the environment, adopt environmentally friendly manufacturing practices and operations and comply with the national and international regulations (Papadopoulos et al., 2010). For example, a product is designed environmentally friendly by reducing the amount of harmful ingredients without affecting its overall performance, or the harmful ingredient is replaced by an eco-friendly or eco-safe ingredient.

Environmental knowledge

Kempton et.al (1995) notified that most people do not have enough knowledge about environmental issues to act in an environmentally responsible way. A lack of knowledge about environmentally sustainable clothing consumption may act as a personal barrier in several ways. First, consumers have very limited awareness as to how clothing production affects the natural environment. This is a barrier because it limits understanding of how clothing consumption behavior affects the environment.

Environmental concern and attitude

Fundamental to environmental research is an individual's concern for the environment (Hines et al., 1987). Based on the pioneering research of Dunlap and Van Liere (1978), environmental concern is defined as a global attitude with

indirect effects on behavior through behavioral intention. Crosby, Gill and Taylor (1981) mentioned that environmental concern is a strong attitude towards preserving the environment.

Attitudes are defined as the enduring positive or negative feeling about some person, object, or issue. In fact, it refers to the information a person has about a person, object, or issue (Newhouse, 1991). The social psychology literature on behavioral research has established attitudes as important predictors of behavior, behavioral intention, and explanatory factors of variants in individual behavior (Kotchen & Reiling, 2000).

Environmental Beliefs

A continuous disagreement exists on the elements of the environmental belief system impelling sustainable behavior. Environmental beliefs can be seen as two-dimensional: Ecocentrism versus Anthropocentrism.

Environmental responsibility

The consumers feel emotionally involved with environmental protection issues (Lee, 2008, 2009) and believe that they can individually contribute towards environmental protection by adopting environmentally favourable activities at

individual levels. They are inspired by intrinsic care about the well-being of the planet and its inhabitants, and are found to be primarily engaged in environmental conservation (Griskevicius et al., 2010).

Research Methodology

Research can be conducted in a quantitative and/or qualitative manner. Quantitative research refers to the systematic empirical investigation of social phenomena via statistical, mathematical or computational techniques. Qualitative research, generates statistics through the use of large-scale survey research, using methods such as questionnaire or structured interviews. The goal of the quantitative approach is to add to the body of knowledge by building formal theory that explains, predicts and controls the phenomenon of interest. The first step in the quantitative approach is to review appropriate literature in order to develop a conceptual framework that specifies relevant variables and expected relationships among them (Bickman & Rog, 1998).

This research is done the quantitative approach for the collection of data to have enough evidence to prove the hypotheses. Also, the purpose is to find out about generation Z's attitudes and knowledge, which required a large enough sample to

be able to test the hypothesis and get the findings and gather enough evidence to conduct a credible analysis. The main features in a quantitative study are larger population samples, the data collection is done with numbers or percentage calculations, and it can be used to generalise to other populations (Bryman & Bell, 2007, p.155).

The area of study is confined to Delhi. The data collected for the study through a structured questionnaire. The study consists of both primary and secondary data. Simple random sampling technique was adopted to determine the sample size. The data for the study were collected from 350 respondents.

The research design used for the research paper is Descriptive in nature. In the paper, the date for studying the factors effecting the purchase intention of Green products for Generation Z have been analyzed through a structured questionnaire. The research method used for the same is Survey technique where a standard validated scale has been used for measuring the influence of these factors on the purchase intention of green products in the questionnaire.
For the same the sample has been taken from the sample frame of Generation Z consumers of Delhi. According to Rescoe, he states that an appropriate research is when the sample is larger than 30 and less than 500 respondent's (Jamalzadeh, 2012). Thus a total of 350 respondent were selected on the basis of simple

random sampling technique. The respondents were drawn from different education levels and gender. The respondents were taken from the age group of 13-23 years which is the segment of consumers under study for Green products in the research paper. The data has been analyzed with the CFA and SEM analysis to validate a proposed Conceptual Model.

Finding and analysis:

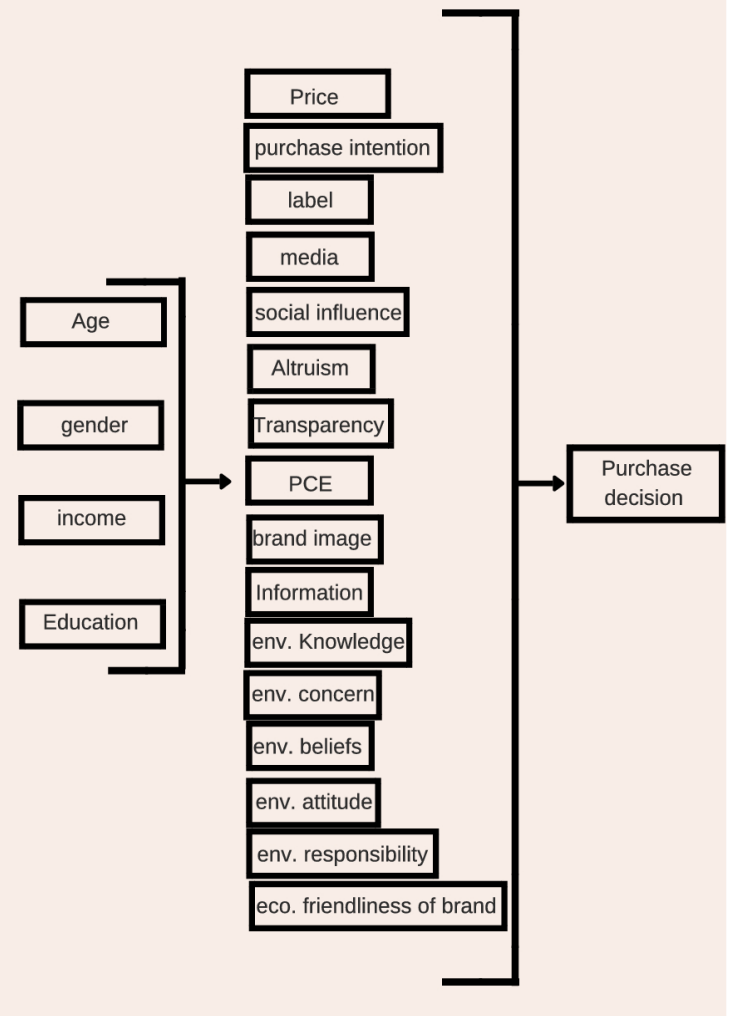
The validated questionnaire had been divided into some parts. The first part helped collecting data about the demographics of the respondents. Major demographic data like Age, Gender, Income and Education were collected for cross analysis of the same.Through the exploratory research the major factors which effected the purchase intention of Indian generation Z consumers for Green products were found out to be :

1. Price
2. Purchase intention
3. Eco label
4. Media
5. Social influence

6. Altruism
7. Perceived consumer effectiveness
8. Brand image
9. Information
10. Transparency
11. Environmental friendliness of companies
12. Environmental knowledge
13. Environmental Concern
14. Environmental Belief
15. Environmental Attitude
16. Environmental Responsibility

The same have been hypothesized to have an impact on the purchase decision of the Green products. The same has been represented as a conceptual model constructed with the help of the past literature. The same can be shown as a conceptual proposed model as below:

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com



The major hypothesis of the study can be listed as follows based on the proposed conceptual model for the purchase intention of Green products .

Hypothesis 1: Environmental attitude positively affects green purchase decision.

Hypothesis 2: Eco label has a positive effect on consumer's green purchase decision.

Hypothesis 3: Environmental friendliness of companies significantly affects green product purchase decisions of consumers.

Hypothesis 4: Drive for environmental responsibility significantly affects green product purchase decisions of consumers.

After the collection of data, data cleaning and analysis through a CFA analysis and SEM.

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

CONSTRUCTS	MEASURES	FACTOR LOADING	Cronbach's Alpha
Awareness of Price	I would choose environmentally friendly goods and services, campaigns or companies if the price were the same.	.82	0.70
	I'm willing to pay more for environmentally friendly products.	.73	
	If the price of green products is less expensive I'm willing to change my lifestyle by purchasing green products.	.82	
Purchase intention	I would buy green products in the near future	.85	0.87
	I plan to buy green products in regular basics.	.83	
	I intend to buy green products because they are more concern about food safety.	.87	
	I intend to buy green products because they are more environmentally friendly.	.83	
Consumer Purchasing Decision	I choose to buy products that are environmentally friendly.	.79	0.66
	I buy green products even if they are more expensive than the non-green ones.	.84	
	I prefer green products than non-green products.	.84	
Eco-label	Green advertisements are always trustworthy.	.86	0.80
	I consider what is printed on eco-labels	.84	

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

	to be accurate. The information on eco-labels is usually easy to understand.	 .84	
Green Advertisement	Green advertisements are attractive. The contents of green advertisements are of great relevance to my daily life. Overall, I"m satisfied with the information currently available on the eco-label of the products I purchase.	.83 .85 .87	0.81
Social influence	I learn from my friends, family and classmates about green products. If my friends purchase green products, I will buy them. I will share information to buy green products with my friends. Most of my friends and family buy green products.	.79 .73 .79 .75	0.76
Altruism	Make people feel welcome. Anticipate the needs of others. Love to help others. Am concerned about others. Have a good word for everyone. Look down on others. Am indifferent to the feelings of others. Make people feel uncomfortable.	.77 .76 .80 .81 .74 -.14 -.33 -.58	0.61

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

	Turn my back on others.	-.66	
	Take no time for others.	-.67	
Perceived Consumer Effectiveness	I think I can solve natural resource problems by conserving water and energy.	.80	0.88
	I think I can help the environment by preferring products that are friendly to the environment.	.90	
	I believe each persons behavior can have a positive effect on environment and society.	.88	
	I believe that there is so much I can do about the environment.	.86	
Brand Image	I feel more comfortable buying product from a brand that has a green image.	.89	0.86
	I'm aware that a strong brand image gives me confident towards their green product.	.88	
	Innovative and new image of eco-friendly product created by some companies tend to attract consumers in going green.	.88	
Information	Green products are quality controlled	.87	0.86
	Green products use efficient transportation.	.84	
	Green products reduce pollution in dyeing	.84	
	Green products create less carbon		

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

	dioxide	.80	
Transparency	This company is straightforward in telling me what I want to know.	.70	0.86
	This company tries to hide the bad things it does.	.29	
	This company tries to hide the good things that it does.	.35	
	Generally, this company tries to hide the things that it does.	.36	
	This company gives me false expectations.	.23	
	This company is clear with me.	.79	
	This company is willing to share information with me even when it may make the company look bad.	.76	
	This company puts everything "out on the table" for all to see.	.82	
	This company provides me with a learning opportunity about itself.	.78	
	I envision this company as a glass building in which everything inside is visible for all to see.	.80	
environmental friendliness of companies	I feel good about buying brands which are less damaging to the environment	.48	0.70
	I refuse to buy products from companies accused of being polluters	-.48	

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Environmental knowledge	I know how to preserve and not cause damage to the environment.	.85	0.86
	I know that plastic bags take many years to decompose and cause pollution.	.86	
	Iknow the causes and effects of "global warming."	.88	
	I know the causes and effects of "particulate matter."	.79	
Consumers' Environmental Concerns	Environmental issues are an emergency issue.	.86	0.88
	Environmental issues are consumers' responsibility.	.85	
	I wish to see less packaging waste generated by processed food products.	.86	
	I am worried about how all of my activities affect the environment.	.85	
Environmental beliefs	I believe my health has already been affected by pollution.	.86	0.68
	I believe that nature must be conserved in the interest of the future generation.	.84	
	I believe nature is strong enough to cope with the impacts of modern industrial countries.	.84	
	I believe India's natural environment is in a good condition	.30	
Environmental attitude	I enjoy reading books or magazines with an environmental message.	.74	0.84
	I like watching television programs with an environmental message	.73	
	I am well informed about environmental		

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

	issues in India Pollution is an important cause of health problems today I am aware of the impact of energy use on the environment	.83 .77 .85	
environmental responsibility	Supporting environmental protection makes me feel as an environmentally responsible person I should be responsible for protecting our environment Environmental protection starts with me I would say I am emotionally involved in environmental protection issues Supporting environmental protection makes me special	.86 .87 .87 .80 .78	0.89

S.No	Measures	Correlation	Accept/Reject
1.	Environmental attitude positively affects green purchase decision	0.54	**H1, *accepted.***
2.	Eco label has a positive effect on consumer's green purchase decision.	0.58	**H2, *accepted.***
3.	Environmental friendliness of companies significantly affects green product purchase decisions of consumers.	0.70	**H3, *accepted.***
4.	Drive for environmental responsibility significantly affects green product purchase decisions of consumers.	0.74	**H5, *accepted.***

The analysis derived from the structural model showed results in,

CFI = 0.9986

RMSEA = 0.0212

These results indicate that the data fit the model well. The RMSEA is less than 0.05 (0.0212) and CFI should be more that or equal to 0.90 (0.9986). Thus the model is fit.

Discussion

The findings show that the Indian generation Z is an aware consumer and feels that its their responsibility as an individual to take care of the environment and they also feel that they can and want to make difference but on the other hand are reluctant to buy green products because of the unclear brand image and information about the brands.

The correlation and its findings with the hypothesis indicate the following:

Hypothesis 1: Environmental attitude positively affects green purchase decision.

The hypothesis was accepted which means that there is a positive relation between environmental attitude and consumers green purchase decision. Which means if the consumer has a positive attitude towards the environment he/she will make a decision to buy the green product and if he/she has a negative attitude

towards the environment he/she may not make the decision to buy the green product.

Hypothesis 2: Eco label has a positive effect on consumer's green purchase decision.

Hypothesis 2 of the research saying eco label has a positive effect on consumer's green purchase decision was accepted which indicates that consumers are more willing to make a decision to buy a green product when it has a eco label on it on the contrary they might not buy the product if it doesn't have the eco label.

Hypothesis 3: Environmental friendliness of companies significantly affects green product purchase decisions of consumers.

Hypothesis 3 of the research was positively accepted which means that the environmental friendliness of companies has a positive impact on consumers green buying behavior. The more the brand will be environmentally friendly more consumers will be willing to buy the product.

Hypothesis 4*:* Drive for environmental responsibility significantly affects green product purchase decisions of consumers.

The last hypothesis was also accepted and shows that the more a consumer feels responsible towards the environment the higher the chances of him/her of buying the green product. Therefore there is a positive relationship between the two.

Conclusions

The findings and the research, shows the characteristics and consumer behavior of generation Z towards green products and the factors that affect it.

Firstly the percentage analysis of the questionnaire shows that generation Z is not price sensitive towards buying green products they are willing to pay for products that are sustainable and would choose them over non green ones. Since they are very adapting the research shows that they don't mind changing their lifestyle to green by buying green products over non green. This generation is also very much influenced by media and their peers, they say that they will buy a green product if their friends buy it.

Most of them had a strong intention towards buying green products even on a regular basis because they felt that green products are more environmental friendly which shows that they have a understanding of green product and know that it doesn't harm the environment.

This generation also shows a high sense of responsibility towards the environment and shows a lot of concern when it comes to preserving the environment. They feel they as individuals can do a lot to help save the environment and each person can make a difference.

Apart from being responsible they are very much aware about the environmental issues that are prevailing and they have a positive approach about brands who work towards being sustainable.

But they also feel that green brands don't provide them with much information about their activities. They are not sure if green products are quality controlled, use efficient transportation or reduce pollution. They don't know if these brands are straight forward in conveying all the information, or if they are even willing to share the information with the consumers. Some of them also feel that green brands give them false expectations and try to hide the things that they do.

This show a gap between the brands and the consumers as the consumers feel that green brands are not transparent enough and also their brand image is not clear.

Through analyzing the model and the correlation between different factors, it was found that *Environmental attitude positively affects green purchase decision (H 1) which was accepted , showing that there is a positive relation between a consumers positive attitude towards green products and their purchase decision. Consumers will buy a green product when they have a positive attitude towards environment and may not if they have a negative attitude.* Eco label has a positive effect on consumer's green purchase decision (H2) was accepted which means that consumers prefer brands which have a eco label over brands which do not, therefore there is a positive relation between eco label and consumers green purchase decision. Environmental friendliness of companies significantly affects green product purchase decisions of consumers (H3) shows that consumers make a purchase decision towards brands which are environmentally friendly and may not if the brand is not environmentally friendly. (H4) Drive for environmental responsibility significantly affects green product purchase decisions of consumers, suggests that consumers with a high responsibility towards environment are willing to make a purchase decision towards green products contrary to the ones who have low sense of environmental responsibility who may not make the decision of buying a green product.

Research Limitations:

The research sample is limited to a sample size of 350 consumers. The same is also limited to the regional boundaries of Delhi. Although the validity and reliability of the data has been checked but there is always a chance of error when it comes to the survey of consumers from a young generation like Generation Z.

References:

Ajzen I., 1991. The theory of planned behavior. Org Behav Hum Decision Processes 50, 179-211.
Albayrak, T., Aksoy, S. and Caber, M. (2013), "The effect of environmental concern and scepticism on green purchase behaviour", Marketing Intelligence and Planning, Vol. 31 No. 1, pp. 27-39.
Barley, S. (2016). Here's what marketers need to know about Generation Z. Sprinklr. Retrieved from: https://www.sprinklr.com/the-way/what-marketers-need-know-generation-z/. [Accessed 3 March 2018].
Berkman, H.W. and Gilson, C.C., 1978. Consumer behavior-concepts and strategies.7th ed. Belmont, California: Dickenson.
Bennie, F., Gazibara, I., & Murray, V. (2010, February). Fashion Futures 2025: Global scenarios for a sustainable fashion industry. [Online report]. (accessed 20 february 2018).
Birtwistle, G., & Moore, C.M. (2007). "Fashion clothing - where does it all end up?" International Journal of Retail & Distribution Management 35(3): 210-216.
Bjørner, T.B., Hansen, L.G. & Russell, C.S. (2004). Environmental labeling and consumers' choice - An empirical analysis of the effect of the Nordic Swan. *Journal of Environmental Economics and Management, 47*(3), 411-434.
Black, S. (2010). "Ethical Fashion and Ecofashion", in The Berg Companion to Fashion edited by Valerie Steele. Oxford, Berg.
Boks, C., & Stevels, A (2003). "Theory and practice of environmental benchmarking in a major consumer electronics company." An International Journal 10(2): 120-35.
Bourland, J. (2011), "What is slow fashion?", Slow Fashioned, available at: www.slowfashioned. com/archives/4909 (accessed 20 february 2018).
Cătoiu I. & Teodorescu N. 2004. *Comportamentul consumatorului* (*Consumer behaviour*), ediţia a II-a, revăzută şi adăugită, Editura Uranus, Bucureşti.
Carey, L. and Cervellon, M.-C. (2014), "Ethical fashion dimensions: pictorial and auditory depictions through three cultural perspectives", Journal of Fashion

Marketing and Management, Vol. 18 No. 4, pp. 483-506, doi: 10.1108/JFMM-11-2012-0067.
Carrington, M.J., Neville, B.A. and Whitwell, G.J. (2010), "Why ethical consumers don't walk their talk: towards a framework for understanding the gap between the ethical purchase intentions and actual buying behaviour of ethically minded consumers", *Journal of Business Ethics*, Vol. 97 No. 1, pp. 139-158
Clark, H. (2008), "Slow fashion: an oxymoron or a promise for the future...?", Fashion Theory: The Journal of Dress, Body & Culture, Vol. 12 No. 4, pp. 427-446, doi: 10.2752/ 175174108X346922.
Cummins, S., Reilly, T.M., Carlson, L., Grove, S.J. and Dorsch, M.J. (2014), "Investigating the portrayal and influence of sustainability claims in an environmental advertising context", *Journal of Macromarketing*, Vol. 34 No. 3, pp. 332-348.
Black, S. (2008). *Eco-chic: The fashion paradox.* London, UK: Black Dog Publishing.
Diamond, J. & Diamond, E. (2013). *The world of fashion* (5th ed.). New York: Fairchild/Bloomsbury.
Dunlap, R. E. and Kent D. V. L., 1978. The new environmental paradigm. Journal of Environmental Education, 9 (4), pp. 10-19.
Ellen, P.S., Wiener, J.L. and Cobb-Walgren, C., 1991. The role of perceived consumer effectiveness in motivating environmentally conscious behaviours. Journal of Public Policy and Marketing, 10 (2), pp. 102-117.
Entwistle, J. (2015). Sustainability and Fashion. Routledge Handbook of Sustainability and Fashion, edited by Kate Fletcher & Mathilda Tham.
Fashionista. 2018. Generation Z: A Primer On Their Shopping and Fashion Habits - Fashionista. [ONLINE] Available at: https://fashionista.com/2017/01/generation-z-shopping-habits. [Accessed 03 February 2018].
Fletcher, K. (2008). *Sustainable fashion and textiles: design journeys*. London, UK: Earthscan.

Fineman, S. (2001). “Fashioning the environment”, Organization, Vol. 8 No. 1, pp. 17-31.
Finch, J. (2016). What is generation Z and what does it want? Fast Company. Retrieved from: https://www.fastcoexist.com/3045317/what-is-generation-z-and-what-does-it-want. [Accessed 3 March 2018].
Freestone, O. M., & McGoldrick, P. J. (2008). Motivations of the ethical consumer. *Journal of Business Ethics, 79*, 445–467.
Gurau, C. and Ranchhod, A. (2005), “International green marketing: a comparative study of British and Romanian firms”, International Marketing Review, Vol. 22 No. 5, pp. 547-561.
Guijun, Z., & Alex S.L (2006). "Impacts of situational factors on buying decisions in shopping malls." European Journal of Marketing 40(1/2): 17-43.
Ha-Brookshire, J.E. and Norum, P.S. (2011), “Willingness to pay for socially responsible products: case of cotton apparel”, *Journal of Consumer Marketing*, Vol. 28 No. 5, pp. 344-353.
Hargie, O., Tourish, D., & Wilson, N. (2002). Communication Audits and the Effects of Increased Automation: A Follow-up Study. *Journal of Business Communication, 39*(4), 414 – 436.
Haisken-DeNew, J., & Frick, J. (2005). Desktop companion to the German socioeconomic panel study.
Hawkins, D. I., & Mothersbaugh, D. L. (2010). *Consumer behavior: Building marketing strategy.* New York: McGraw-Hill Irwin.
Henninger, C.E. (2015), “Traceability the new eco-label in the slow-fashion industry? – Consumer perceptions and micro-organisations responses”, Sustainability, Vol. 7 No. 5, pp. 6011-6032, doi: 10.3390/su7056011.
Hirsh, J. B., & Dolderman, D. (2007). Personality predictors of consumerism and environmentalism: A preliminary study. Personality and Individual Differences, 43, 1583–1593.
Hogg, M. A. & Abrams, D. (1988). *Social identifications: A Social Psychology of Intergroup Relations and Group Processes*. London: Routledge.

Homer, P., & Kahle, L. (1988). "A structural equation test of value-attitude-behaviour hierarchy." Journal of Personality and Social Psychology 54(4): 638-46.
HuffPost. 2018. 8 Key Differences between Gen Z and Millennials | HuffPost. [ONLINE] Available at: https://www.huffingtonpost.com/george-beall/8-key-differences-between_b_12814200.html. [Accessed 05 February 2018].
HuffPost Canada. 2018. The Rise Of Gen Z And What It Means For The Fashion World. [ONLINE] Available at: http://www.huffingtonpost.ca/2016/05/30/gen-z-fashion_n_10209778.html. [Accessed 03 February 2018].
Joergens, C. (2006), "Ethical fashion: myth or future trend?", Journal of Fashion Marketing and Management, Vol. 10 No. 3, pp. 360-371, doi: 10.1108/13612020610679321.
Johnston, A. (2012), "The first steps towards considerate design incorporating Cradle to Cradle principles", London College of Fashion, London, available at: http:// innovatingsustainablefashion.files.wordpress.com/2012/07/cradle-to-cradle_copenhagen_ final_small.pdf (accessed 20 Februay 2018).
Jung, S. and Jin, B. (2014), "A theoretical investigation of slow fashion: sustainable future of the apparel industry", International Journal of Consumer Studies, Vol. 38 No. 5, pp. 510-519, doi: 10.1111/ijcs.12127.
Kahle, L. R. (1996). "Social values and consumer behaviour: research from the List of Values." The Psychology of Values: The Ontario Symposium 8: 135-50.
Keegan, W.J. and Green, M.C. (2011), *Global Marketing*, Prentice Hall, Upper Saddle, NJ Kim, H.-S. and Damhorst, M.L. (1998), "Environmental concern and apparel consumption", *Clothing and Textiles Research Journal*, Vol. 16 No. 3, pp. 126-133.
Kent, R. A. (2007). *Marketing Research: Approaches, methods and applications in Europe*. London: Thomson Learning.
Kelly Lovell. 2018. 5 Ways Businesses Can Reach 'Generation Z'. [ONLINE] Available at: https://www.entrepreneur.com/article/271999. [Accessed 04 February 2018].

Khurana, K. & Ricchetti, M. (2016). Two decades of sustainable supply chain management in the fashion business, an appraisal. *Journal of Fashion Marketing and Management, 20*(1), 89- 104.
Kim, Y. and Choi, S.R., 2005. Antecedents of green purchase behaviour: An examination of collectivism, environmental concern and PCE. Advances in Consumer Research, 32(1), pp. 592-599.
Kim, H.-S., & Damhorst, M.L. (1999). "Examination of environmental attitude and ad message credibility." Journal of Fashion Marketing and Management 3(1): 18-30.
Kotler, P., Armstrong, G., Wong, V. & Saunders, J. (2008). *Principles of marketing.*
Laroche, M., Jasmin, B., Guido, B. F. Bergeron, Guido, Barbaro-Forleo (2001). "Targeting consumers who are willing to pay more for environmentally friendly products." Journal of Consumer Marketing 18(6): 503-520.
Luz, C. (2007). "Waste Couture, Environmental Impact of the Clothing Industry." Environmental Health Perspectives 115(9).
Lee, M. (Sundy 4 May, 2003). Once size fits all in McFashion, The Observer. 1.
Levıckaitė, R. (2010). Generations x, y, z: How social networks form the concept of the world without borders (The Case of Lithuania). Limes, 3(2),: 170-183.
Li, H. and Cai, W., 2008. Green marketing and sustainable development of garment industry- A game between cost and profit. International Journal of Business and Management, 3(12), pp. 81-85.
Li, L.Y., 1997. Effects of collectivist orientation and ecological attitude on actual environmental commitment: The moderating role of consumer demographics and product involvement. Journal of International Consumer Marketing, 9(4), pp. 31-35.
Mandese, J. (1991). New Study Finds Green Confusion, Advertising Age.
Mostafa, M., 2009. Shades of green: A psychographic segmentation of the green consumer in Kuwait using self-organizing maps. Expert Systems with Applications, 36(8), pp. 11030-11038.

National Retail Federation. 2018. Despite Living a Digital Life, 98 Percent of Generation Z Still Shop In-Store | National Retail Federation. [ONLINE] Available at: https://nrf.com/media/press-releases/despite-living-digital-life-98-percent-of-generation-z-still-shop-store. [Accessed 03 February 2018].
National Center for Biotechnology Information (2016). U.S. National Library of Medicine, The Associated Press. *Retrieved from: http://www.statisticbrain.com/attention-span-statistics/.* [Accessed 3 March 2018].
McCarty, J. A., & Shrum, L.J. (1994). "The recycling of solid wastes: personal values, value orientations, and attitudes about recycling as antecedents of recycling behavior." Journal of Business Research 30(1): 53-62.
Nielsen, (2015). Green Generation: Millenials say Sustainability is a Shopping Priority. Retrieved from: http://www.nielsen.com/eu/en/insights/news/2015/green-generation-millennials-say-sustainability-is- a-shopping-priority.html. [Accessed 3 March 2018].
Okonkwo, U. (2007). Luxury fashion branding : trends, tactics, techniques Basingstoke, Palgrave Macmillan.
Ottman, J., 1992. Industry's response to green consumerism. Journal of Business Strategy, 13(4), pp. 3-7.
Ottman, J. A. 1993. *Green Marketing: Challenges and Opportunities*. Chicago: NTC Business Books.
Panni, M.F.A.K., 2006. The Effect of Consumerism towards customer attitudinal behavior in food industry in Malaysia. M.Phil. Multimedia University.
Paolo Guenzi, Michel, D. J., Sandro Castaldo (2009). "A comprehensive model of customer trust in two retail stores." Journal of Service Management 20(3): 290-316.
Patrick, H., & Vanessa, Apaolaza Ibáñez. (2006). "Green value added." Marketing Intelligence & Planning 24(7): 673-680.

Patagonia, (2017). Patagonia's Mission Statement. Retrieved from: http://eu.patagonia.com/enNL/ patagonia.go?assetid=8952. [Accessed 19 February 2018].
Pickett-Baker, J., & Ozaki, R. (2008). "Pro-environmental products: marketing influence on consumer purchase decision." Journal of Consumer Marketing 25(5): 281-293.
Pickton, D. & Broderick, A. (2001). *Integrated marketing communications*. Harlow: Prentice Hall.
Reverse resources (2018) HOW MUCH DOES GARMENT INDUSTRY ACTUALLY WASTE? Reverse Resources. [ONLINE] Available at:http://reverseresources.net/news/how-much-does-garment-industry-actually-waste. (accessed 20 february 2018).
Rocha, M. A. V., Hammond, L, Hawkins, D. (2005)."Age, gender and national factors in fashion consumption", Journal of Fashion Marketing and Management: An International Journal, Vol. 9 Iss 4 pp. 380 – 390.
Schaller, N. (1989). Low input sustainable agriculture, in Smith, D.T. (ed) *1989 Yearbook of Agriculture: Farm management, 216-219*. U.S. Department of Agriculture: Washington, D.C.
Schwartz, S., 1977. Normative influences on altruism. In: L. Berkowitz, ed, 1977. Advances in experimental social psychology. New York: Academic Press, pp. 221-279.
Sethi , Kaur , Wadera 2017. 'Purchase intension survey of millennials towards online fashion stores. ' Academy of marketing studies journal.
Shrum, L.J., McCarty, J.A. and Lowrey, T.M., 1995. Buyer characteristics of the green consumer and their implication for advertising strategy. Journal of Advertising, 24(2), pp. 71-90.
Signe, K., and Clifford, S. Russell (2005). Environment, Information and Consumer Behaviour. Northampton, Edward Elgar Publishiing, Inc.
Solomon, M., Bamossy, G. & Askegaard, S. (2006). *Consumer behavior a European perspective*. Harlow: Financial Times/Prentice Hall.

Stern, P., Dietz, T. and Kalof, L., 1993. Value orientations, gender, and environmental concern. Environment and Behavior, 25(3), pp. 322-348.
Sustainable Apparel Coalition (SAC) (2017). [Online] Available at: <http://apparelcoalition.org/the-higg-index/> [Accessed 20 March 2018]

The Generations - Which Generation are You?. 2018. The Generations - Which Generation are You?. [ONLINE] Available at: https://www.careerplanner.com/Career-Articles/Generations.cfm. [Accessed 03 February 2018].

The Generations - Which Generation are You?. 2018. The Generations - Which Generation are You?. [ONLINE] Available at: https://www.careerplanner.com/Career-Articles/Generations.cfm. [Accessed 03 February 2018].
The Guardian. 2018. *Sustainable style: will Gen Z help the fashion industry clean up its act? | Fashion | The Guardian*. [ONLINE] Available at: https://www.theguardian.com/fashion/2017/apr/25/sustainable-clothing-fashion-revolution-week-rana-plaza-emma-watson. [Accessed 04 February 2018].
Tikka, P. M., Kuitunen, M. T., & Tynys, S. M. (2000). Effects of educational background on students' attitudes, activity levels, and knowledge concerning the environment. *The Journal of Environmental Education, 31*, 12-19.
Thøgersen, J., Haugaard, P. & Olesen, A. (2010). Consumer responses to ecolabels. *European Journal of Marketing*, *44*(11/12), 1787-1810.
Urban Dictionary. 2018. Urban Dictionary: Generation Z. [ONLINE] Available at: https://www.urbandictionary.com/define.php?term=Generation%20Z. [Accessed 03 February 2018].
Vogue. 2018. 4 Things to Know About the Gen Z Fashion Lover - Vogue. [ONLINE] Available at: https://www.vogue.com/article/gen-z-fashion-lovers-fashion-culture-design-panel. [Accessed 04 February 2018].

Williams, K.C. & Page, R.A. (2011). Marketing to the generations. Journal of Behavioral Studies in Business, 3(1), 37-53.
Zelezny, L. C., Chua, P., & Aldrich C. (2000). Elaborating on gender differences in environmentalism. *Journal of Social Issues, 56*, 443-457.

Bibliography

Carrete, Lorena, Raquel Castaño, Reto Felix, Edgar Centeno, and Eva González (2012), "Green Consumer Behavior in an Emerging Economy: Confusion, Credibility, and Compatibility," Journal of Consumer Marketing, 29 (7), 470–481.
Chung, S. W. – Greenpeace, (2016). Fast fashion is "drowning" the world. We need a Fashion Revolution! Retrieved from: http://www.greenpeace.org/international/en/news/Blogs/makingwaves/fast-fashion-drowning-world- fashion-revolution/blog/56222/. [Accessed 4 March 2018].
Ernst & Young (2015). Rise of Gen Z: new challenge for retailers.
Hulyk, T. (2015). Marketing to Gen Z: Uncovering a new world of social media influencers. Franchising world. Vol 47 No. 12, 32-35. Retrieved from: http://www.franchise.org/marketing-to-gen- z-uncovering-a-new-world-of-social-media-influencers. [Accessed 18 March 2018].
Jansson, Johan, Agneta Marell, and Annika Nordlund (2010) "Green Consumer Behavior: Determinants of Curtailment and Eco-Innovation Adoption." Journal of Consumer Marketing, 27(4) 358–70.
Kaufmann, Hans, Mohammad F. Panni, and Yianna Orphanidou (2012), "Factors Affecting Consumers' Green Buying Behavior: An Integrated Conceptual Framework," Amfiteatru Economic Journal, 14 (31), 50–69.
Moulds, J. (2015). Can big brands catch up on sustainable fashion? The Guardian, Sustainable Business. retrieved from: https://www.theguardian.com/sustainable-

business/sustainable-fashion blog/2015/mar/24/composting-clothes-sustainable-materials-biodegradable. [Accessed 2 March 2018].
O'Connell, S. (2015). Forget Millenials: 7 reasons generation Z is better with money. GO BankingRates. Retrieved from: https://www.gobankingrates.com/personal-finance/forget-millennials- 7-reasons-gen-z-better-money/. [Accessed 17 March 2018].
RetailMeNot (2015), "4 in 5 Consumers Think Eco-Friendly Products Cost More 'Green'" (accessed May 2, 2016). [available at http://www.prnewswire.com/news-releases/4-in-5-consumers-think-eco-friendly-products-cost- more-green-300061649.html].
Vazifehdoust, Hamad, Mohammed Taleghani, Tahered Esmaeilpour, and Kenneth Nazari, (2013), "Purchasing Green To Become Greener: Factors Influencing Consumer' Green Purchasing Behavior," Management Science Letters, 3 (9), 2489–500.

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Business Environment Characteristics and New Venture Creation in Rivers State, Nigeria

Ikpesu, Oghenerukevwe Christian
Department of Business Education
Faculty of Technical and Science Education, Rivers State University
PMB 5080 Port Harcourt, Nigeria
coghenerukevwe@yahoo.com

Abstract

The study correlated business environment characteristics and new venture creation using one hundred 2016/2017 set of M.Sc graduate students of business education; Rivers State University, Nigeria. Survey psychometric scales pilot tested using Cronbatch Alpha obtained the internal consistency of 0.85 and 0.78. Quantitative data computed using Pearson product moment coefficient to run the correlation matrix of the various characteristics of business environment at $p<0,05$ confident level. The various characteristics which include accessible venture capital, political stability, skilled labour, improved transportation and power generation have been statistically significant to new entrants founding

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

motives.The confirmatory empirical evidence was further compensated with the made in Nigeria, ban on imports of consumable goods economic and treasury single account fiscal policies which invariably promotes trust and strengthen business practices and transparency. Despite graduate students' founding motives positive correlation of personal efforts to achieve one's dream, eagerness to start one's business, aspiring businessmen are confronted with multiple challenges of difficulty in accessing finance, insecurity, institutional bureaucracy and multiple taxations, rising exchange rate and high interest rates which the recessed macro-economic sector has externally imposed. It was therefore concluded that governments should rethink both economic and fiscal policies to introduce incentives that will lower bank interest rates, introduce tax holiday and special exchange rates to attract more investments in the country.

Introduction

Entrepreneurship in capitalist economy is responsible for the emergence of new businesses. Emerging businesses are significant means of maximizing opportunities; creating wealth and adding value to the society. Many studies have consistently provided the baseline that supports and connects entrepreneurship to national technological advancement, industrialization and economic development (Lena & Wong 2008, Kuttim, Kallaste, Venesaar & Kiis, 2013, Ollila & Williams-Middleton, 2011, Ikpesu, 2015). The Global Entrepreneurship Monitor

(2006) report further affirmed a systematic relation between the development level and the entrepreneurship type and level of country (Bosma & Harding, 2007). This explains the increasing global support for young people to engage in venture creation as an alternative career path. Even government economic policy interventions such as Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) have equally been put in place to stimulate, monitor, and coordinate the development of the Micro Small and Medium Enterprises (MSMEs). National Economic Empowerment and Development Strategy (NEEDS) though focused on the macroeconomic, structural, public, and institutional governance reforms also recognised the private sector development as economic engine for wealth creation, poverty reduction in the country. However, there are divergent arguments regarding the synergy between business and development especially in Low Income Countries (LICs). Banerjee & Duflo (2011) in Kaijage & Wheeler (2013), Moroz & Hindle, (2012) lamented the lack of globally accepted theory of economic development or unified theory of entrepreneurial process. Sautet (2011) also noted absence of empirical evidence that supports the impact of entrepreneurship on development in Low Income Countries. Despite these controversies, increasing uplifting of entrepreneurial activity is still being canvassed by international bodies and bilateral agencies as a global mechanism for poverty reduction (United Nations Development

Programme, 2004 & 2008). In addition to this emerging fact, policy makers at the macro levels are pushing for an integrative approach such as use of innovation centers, incubators, technology transfers, science parks and venture capital operations (McMullan & Long, 1987, Lena & Wong, 2004) to drive the competitive and responsive enterprise development. In most cases, higher education, precisely universities, are also being tasked by government and employers to contribute to the growing phenomenon of entrepreneurship by designing and offering appropriate entrepreneurship education courses and training (Laukkanen, 2000) for students stepping into the labour market. Incidentally, these researches focused more on the background of the entrepreneurs, socio-cultural values, experience and attitudes, especially previous work experience, job satisfaction, parents' entrepreneurial tendencies, age and education (Venesaar, Kallaste and Kuttim 2013). Similarly, other researchers Shapero and Sokol (1982), Autio, Pathak & Wennberg (2013), Levie & Autio (2011), Autio et al, (2013), Colin, (2015) identified desirability and feasibility of new startup supported by cultural practices, resource availability and government regulations as factors that promotes entrepreneurial intentions amongst young people. Also, Lena & Wong, (2004) noted that the act of starting new business has been associated with entrepreneur's personality, demographic antecedents and career decisions. Sieger et al (2011) in their GUESSS survey of

26 countries questioned how individual, societal, family and university-related factors determine students' intention for establishing their own company. Although, the motives for forming venture may have varied among different countries, realising own dream, higher income and urge to achieve something hold strong effect on student becoming employee, founder or successor. Despite these arguments, the need for strong macro-economic business –induced environment is imperative to drive the micro-economic sector and supports emerging new ventures. Venesaar, Kallaste & Kuttim (2013) using Gartner's integrative framework found that the external environment and cultural influence explain why people have different motives for starting a company, as well as the attitude and behaviour of students in different countries.

Contextually, business environment means anything that actively influence decisions, strategies, processes and performance of businesses. Business environment refers to all conditions and forces which provide external climate that puts pressure on business operations that are beyond the control of business organisations. Kotler and Armstrong (2004) had scholarly observed that different restrictions are imposed on all organisations by the environment. Despite the complexity of business environment especially in low per capital income countries with high institutional deficiencies there is substantial relationship between its characteristics and new venture creation. Government economic

policies, social, technological, legal and political institutions collectively create and determine how the external environment contributes to businesses performance. Researchers have at different instances emphasized the importance of supportive enabling conditions as the catalysts for business formation and growth (Kaijage & Wheeler, 2013), Rodrik (2003), Acemoglic et al, (2001) using institutions explained cross –country growth differences among developing countries. Also, Oyebanji (1994), Lawal, (1993) stressed the importance of business environment to influence and motivate people towards their goals in terms of venture creation. Again, the World Bank 'Doing Business' reports (World Bank, 2012 & UNDP, 2008) emphasized the increasing importance of supportive enabling conditions to facilitate business formation and growth. Critics however observed that the economic climate in its current form riddled with weak public institutions, governance and corruption is major threats to new start-ups particularly in Nigeria. Corruption is endemic and catastrophic, creating negative economic climate that impairs the flow of investments. Okonji-Iweala and Osafo-Kwaako (2007) lamenting the monumental consequences of corruption and poor governance asserted that it affects growth and public service delivery, distorts doing business and serves as a tax on private investment. Baumol (1993) however, classified business environment in neo-classical economy as productive and unproductive entrepreneurs. Productive entrepreneurial activities are those

activities that contribute directly or indirectly to net output of the economy. Scase (2000) refers to the unproductive entrepreneurs as illegitimate entrepreneurs who are opportunistic hustlers or mafia members whose activities mainly strengthen their aristocratic dynasty. The political class creates uncertainty or insecure economic environment through unpopular legislations and laws that sometimes support domestic infrastructural development. Under the current economic environment, allocation of legitimate entrepreneurial resources is either misappropriated or diverted to socially desirable but economically unproductive activity (Kaijage & Wheeler 2013, Sautet, 2011). Human capital and other needed investments which include infrastructure, health, and education are diverted by individuals for private use. These activities not only have adverse consequences on flow of investments but impair growth of capitalism. Yet, the critical role of business environment as catalysts for new venture creation is rarely considered in most studies especially in developing economy. This hiatus in the academy of entrepreneurial research is what prompted this new drive to determine whether business environment can significantly contribute to new venture creation.

Hypotheses

- There is no significant relationship between business environment characteristics and graduate students' new venture creation.
- There is no significant relationship between government economic policy intervention and graduate students' new venture creation.
- There is no significant relationship between business environment and graduate students motives for establishing venture
- There is no significant relationship between the challenges of business environment and graduate students' new venture creation.

Business Environment and venture creation Perspectives

Nigeria is a cosmopolitan country constitutionally divided into six geo-political zones and thirty-six federating states. Rivers State situated in the southern domain is a multi- lingua and multi- cultural economic environments. The State is endowed with large scale oil production, multinational firms and viable local economy in Nigeria significant to new venture creation. Without any gainsaying, economic environment in Nigeria is predominantly controlled by the oil economy contributing majorly to the country's foreign earnings, GDP and national development. Industrialization and economic development witness annually in Nigeria is engineered by the strong earnings from oil production in the southern

Nigeria. However, the political governance is defined by religious divides and ethnicity amongst the various ethnic nationalities. Clifford (2013) noted that racial acrimony and oil disputes have led to dishonesty among Nigerian political parties and authority figures. Macro-economic environment in Nigeria although is being challenged by a turbulent decline in crude oil prices, falling from over $100 per barrel (pb) in 2015 to $45-$50 (pb) in 2016 is very crucial to the growth of the micro-economic sector. The country, on the other hand, had as much as $25billion oil revenues shortfalls within a year resulting in weak economic growth and decline GDP rating of 2.5% in 2015 in contrast to 6.2% in 2014. Exchange rate, interest rate and inflation have equally reached their crescendo in the last two years thereby having negative consequences on the overall business performance and plunging the economy into recession. As observed in the Economic Recovery & Growth Plan 2017 -2020 (FGN, 2018) the challenges in the oil sector, including sabotage of oil export terminals in the Niger Delta, negatively impacted government revenue and export earnings, as well as the fiscal capacity to prevent the economy from contracting. These macro-economic indices have huge implications on the micro-economic environment and emergence and growth of new ventures. Unfortunately, the country is confronted by ripple of insurgency that has caused lot of challenges to the business environment. Nigeria currently is fighting boko haram insurgency in North East, the dreaded badoo cult

in South West, militancy in Niger Delta and agitation for secession in the South East which signal unhealthy business environment making entrepreneurs more disenchanted to invest.

Regardless of all these socio-political challenges, Nigeria is an emerging economy and the Annual GDP ranked second behind South Africa. The need for entrepreneurship is gaining currency and is being popularised as the best alternative to problem of economic development and unemployment. Nelson (2007) noted the growing consensus amongst developing countries, governments taking lead of determining their own nation's poverty reduction priorities and the need to more directly engage and empower the poor themselves in the process. Yumkella (2007) supports the critical need to develop domestic entrepreneurship by developing countries and kick start economic development using bottom-up approach especially through small enterprise development. Hence, most countries' economic growth agenda are centered largely on entrepreneurship as economic strategy pushing for the participation and employment of the poor in small and medium size enterprises (SMEs). These countries now seek ways to raise the skills, employment, entrepreneurship, and productivity of the poor within the expanse of their economic growth and creating favourable macro-economic environment. For instance, several policy interventions initiated by the government such as Nigeria Local Content (NLC, 2012), National Economic

Empowerment and Development Strategy (NEEDS, 2004) and Micro Small and Medium Enterprises (MSMEs, 2007) expand the entrepreneurial space and promote the micro-economic growth in different sectors of the nation's economy. Kaijage & Wheeler (2013) had maintained that SME growth outpaced income distribution policies in reducing income inequalities and building social cohesion by factors as great as four to one in the past two decades. Thus, the critical role of private sector to wealth creation and employment quite often justifies the current global push for entrepreneurship among young people. Evidence from empirical studies conclude that young people aged 25-44 years which represent the unemployed populace are willing to start business and exploit the abundant opportunities of their countries. Entrepreneurship is an intentional behaviour crucial to the process, forming the first in a series of actions to organisational founding (Aloulou, 2015, Krueger et al, 2000, Bird, 1988). As a result, it is the process of organisational emergence that precedes planned behaviour of an individual.

Theory of Plan Behaviour TPB, (Ajzen, 1991) provides the theoretical foundation in this study to explain how individuals' behaviour toward creation of new venture can be caused by the prevailing economic environment in a country. In other words, the critical role of environment cannot be undermined because it

supports the process of new venture creation. This theoretical framework is used to guide the understanding of human social behaviour which scientists classified as intention, attitude toward behaviour, subjective norm and perceived behavioural control. According to Krueger et al (2000) intention is the single best indicator of a planned behaviour. It refers to a conscious state of mind preceding action and directing attention toward the goal of setting up a new business. The framework has successfully linked TPB model to entrepreneurs' start-up intentions especially among university students. Multiple researchers in different countries such as Kolvereid in Aluoluo (2015), Souitaris et al. (2007), Emin et al. (2005), Engle et al. (2010), Van Gelderen et al. (2008) largely validated the key principles of the TPB framework in different cultural and institutional context. In addition, Krueger et al. (2000) comparing the predictive power of the TPB model to Shapero's model of the entrepreneurial intent concludes that intention models predict behaviour better than either individual or situational variables. Despite Krueger's viewpoint, business environment circumstantially representing situational variable is significantly related to individual's intended behaviour towards new venture creation. Business organisation undertaken by entrepreneurs must be supported by good investment climate. Gartner's integrative framework of entrepreneurship classified as personal characteristics, nature /scope of organisation, environment surrounding the new venture and the process of

venture creation are essential factors supporting entrepreneurial intent. The process of starting up a new venture is cumbersome and demanding task, especially in the initial stages of building the product that can be commercialized and where the organizational and financial architecture of the firm has to be developed (Trimi & Berbegal-Mirabent, 2012). New venture is simply organising of new organisations; assembly of ongoing interdependent actions into sensible sequences that generate sensible outcomes. This perspective is closely linked to the definition of new organisation developed by the Strategic Planning Institute (1978) describing new venture as independent entity, a new profit centre within existing company, joint venture, a new market entrant by its competitors, and a new source of supply. Again, entrepreneurs are individuals or group of people associated with unique behaviour such as business opportunities identification, gathering of resources, market products/service, and producers of products, and build organisation and responds to government and society which eventually lead to organisation of business venture. Drucker (1985) however, believes that new business is not identifying entrepreneurship but creating new and dissimilar things. Entrepreneurs are people whose ambition, creativity, innovation, management capabilities, risk-taking propensity, positive state of mind and power of vision push them to do something differently- venture enterprise. According to Gartner (1985) entrepreneurship is the creation of organisations involving

interaction between environment and individuals; and that the creation of organisation is seen as evolutionary. Business organisation generally operates in an environment and is controlled by its forces. In most cases, the success, survival of any existing business organisation and emergent of new ones is dependent largely on the openness and flexibility of the economic environment. Kotler and Armstrong (2004) had scholarly observed that different restrictions are imposed on all organisations by the environment. Constraints which include institutional, social, political, and legal environments adversely hinder the growth of entrepreneurialism in Low Income Countries (LICs) and most promising small scale businesses consequently are forced out of market. As Trimi & Berbegal-Mirabent (2012) had observed firms operating in the technology –intensive sectors are usually confronted with constraints such as large investments required to develop the product, or very short product life cycle, and emergence of many copycat competitors. In fact, the dynamic setting, innovation speed, product development, customers' behaviours, competition threat, governmental regulations, suppliers, investors, as well as many other environmental factors identified have considerable impact on the organization (Goktan & Miles, 2011, Mulders & Van den Broek, 2012).

The environments in which businesses operate not only contribute to their global outlook, successes but also lead to their failure. Environment is not physical surroundings in this context but a management concept that describes all those factors that have direct or indirect pressures and consequences upon business organization. Business environment in this context refers to external forces, factors and institutions that are beyond the control of individual business organisations and their management and affect the business enterprise. It implies all external forces within which a business enterprise operates. Business environment influences the functioning of the business system. Again, it represents such conditions and forces which are customers, creditors, competitors, government, and socio-cultural organisations, national and international organisations that determine the emergence and success of new ventures. Besides, its reference to already existing business, these conditions on the other hand pose challenges to new entrants. Emergence and growth of new business ventures could be determined by the conditions of the external environment prevalent in a country. Amidst the different components of the external business environment, the economic dimension of the environment refers to country economic system, its structures and economic policies, the organised capital market, factors of production, business cycles and socio-economic infrastructure determine how business emerge and their successes. It is the aggregate capacity of the economic system and structural responses of the economy to economic policies.

Economic factors such as government economic policies, interest rate, exchange rate, per capital income either increase or reduce consumption behaviour, inflation, multiple taxations, privatisation policy and unstable political conditions have been identified to have direct consequences on investments and emerging new ventures. Undoubtedly, small and medium scale enterprises in developing countries are struggling to survive under competitive environments with heavy taxes and levies burden (Kuratko, 2005). The Economic Recovery & Growth Plan 2017-2020 (FGN, 201) outlined access to finance, power, corruption, tax rates, transportation, political instability, informal sector practices, access to land, custom and trade regulation and tax administration to be obstacles weighing down the capacity of new ventures to survive in Nigeria.

Iin the last two years, economic policy of made in Nigeria goods and services was introduced by the federal government attracted young populace mainly the unemployed mass to venture into business. As a result, the ban on the importation of consumable goods and services that can be produced locally opens up the entrepreneurial space. Increase participation of home grown entrepreneurs stirs up competitive spirit among young Nigerians to tap the abundant economic opportunities so as to create employment, increase consumption of goods made in the country. The regulatory support according to Autio (2011) is positively associated with entrepreneurial entry, growth and aspirations. UNIDO (2007) outline the benefits of good government and effective public policy interventions in supporting

competitive and responsible enterprise development to include creating an enabling framework for private sector development, supporting small enterprise development, fostering responsible business practices and improving aid effectiveness.

Furthermore, Treasury Single Account (TSA) economic and fiscal policy was launched and implemented in 2015 by the Nigeria Government to consolidate all inflows from ministries, departments and agencies (MDAs) into single account in the Central Bank of Nigeria and directed the compliance of all federal MDAs. Treasury Single Account is otherwise known as the process and tool used by government to ensure all accounts are kept in a single unit for effective management of its finances, bank and cash position. The policy is introduced to eliminate high incidences of fragmented systems in handling government receipts and payments, promotes efficient management and control of government banking arrangements in line with IMF's recommendations. Besides its economic and accountability benefits, the policy has been criticized for reducing liquidity and bank lending capacity, creating socio-economic hardship, downscaling the workforce and high inflation, inability of government institutions to access funds. In enumerating the pains and gains of Treasury Single Account (TSA), Nweze (2016) lamented the difficulty to fund research in universities as these institutions cannot access their grants on time and possible diversion of funds by donor agencies to countries with less transaction hurdles.

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Methodology

The case-study is conducted using dataset of 2016/2017 full-time M.Sc students in business education, Rivers State University. The State is selected amidst other States in Southern Nigeria due to the presence of transnational oil industry, large scale construction firms, and high socio-economic status. These variables tend to create favourable environment for supporting new ventures and employment. Basaiamoit and Wagner (2015) referring toYin (2009) and Barzelay (1993) describes case –study research as suitable empirical inquiry method for conducting an indepth investigation of contemporary phenomenon in real-life context. Case studies are preferably used especially with small-sample size and more valuable to generalize on the basis of a real-life context (Seale, et al 2004). Also supporting the case study (Barzelay, 1993) argued that it yields wide range of results that can be used by anybody to significantly improve collective problem solving in critical aspects of society such as politics, management, production, and professional inquiry. In this context, the researcher used (88) 2016/2017 M.Sc students in business education and respondents between the age of 25 – 40 considerably manageable sample for the study.

The dependent variable (new venture creation) the researcher uses the Global University Entrepreneurship Spirit Student survey (GUESSS), Venesaar et al (2013) modified questionnaire to determine the significant influence of business environment on entrepreneurial entry. Reliability of the survey instruments based on Cronbach alpha produced 0.870 and 0.863 coefficients. These products quite indicated high internal consistency which further

substantiated the reliability of the instruments. The choice of this statistical tool for testing for internal consistency has been considered appropriate for factor analysis which satisfactorily supports the psychometric properties in a study. Babbie & Mouton (2001) simply referred to Cronbach Alpha reliability as arithmetical coefficient of reliability. On the other hand, the explanatory (independent) variable which is the business environment was measured using Likert scales ranging 4 – 1 from -4 Strongly agreed, (SA), Agreed (A), Disagreed (DA) and Strongly Disagreed (SDA) to rate the business environment and determine the strength of correlation with the dependent variable (new venture creation). The questionnaire was hand-delivered to graduate students to fill and data were collected before lecture commence. However, quantitative data were computed using SPSS 1989 -2013 version to provide statistical correlations null hypotheses tested at 0.05 significant level which equally established the strength of coefficient of the correlations.

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

RESULT PRESENTATION

The statistical analyses hereby are presented underneath in tables

Correlation showing the Characteristics of Business Environment with New Venture Creation

		1	2	3	4	5	6	7	8	9	10
1	Environment is investment friendly	1									
2	More people are now interested in creating new venture	.723**	1								
		.000									
		80	80								
3	Venture capital is accessible	.332**	.204	1							
		.003	.069								
		80	80	80							
4	Available skilled labour	.142	.012	.498**	1						
		.208	.917	.000							
		80	80	80	80						
5	Competition is less for one's product	.501**	.780**	.398**	.084	1					
		.000	.000	.000	.459						
		80	80	80	80	80					
6	Stable politics engenders investment in micro-economic sector	.289**	.501**	.357**	.000	.643**	1				
		.009	.000	.001	1.000	.000					
		80	80	80	80	80	80				
7	Improved power generation reduce costs	.254*	.440**	.317**	-.119	.267*	.540**	1			
		.023	.000	.004	.294	.016	.000				
		80	80	80	80	80	80	80			
8	improved transportation system reduced costs	.130	.276*	.135	-.010	.608**	.543**	-.024	1		
		.251	.013	.233	.927	.000	.000	.832			
		80	80	80	80	80	80	80	80		
9	Creditors are less difficult to access	-.138	.033	-.311**	-.138	.290**	.513**	-.186	.762**	1	
		.221	.770	.005	.221	.009	.000	.098	.000		
		80	80	80	80	80	80	80	80	80	
10	Market is readily accessible	.026	.148	-.307**	-.328**	.259*	.561**	.050	.633**	.906**	1
		.818	.192	.006	.003	.020	.000	.659	.000	.000	
		80	80	80	80	80	80	80	80	80	80

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

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

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Table 2: Correlation showing of Government Economic Policy interventions towards New Venture Creation

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

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

Variable	1	2	3	4	5	6	7	8	9	10
1. Made in Nigeria Economic policy engenders investments	1									
2 It provides supportive environment	.920**	1								
	.000									
	80	80								
3 Ban on imports increase local production	.026	-.051	1							
	.820	.655								
	80	80	80							
4 Increase consumption of locally made Goods	.196	-.069	.304**	1						
	.081	.545	.006							
	80	80	80	80						
5 Increase competition among new entrants	-.143	-.341**	.469**	.855**	1					
	.205	.002	.000	.000						
	80	80	80	80	80					
6 Treasury Single Account policies reduced frauds	-.013	-.234*	-.001	.249*	.270*	1				
	.907	.036	.995	.026	.015					
	80	80	80	80	80	80				
7 Promotes trust in doing business	.623**	.521**	-.009	.341**	.126	-.246*	1			
	.000	.000	.936	.002	.267	.028				
	80	80	80	80	80	80	80			
8 The policy strengthen business practices	.481**	.265*	.162	.194	.000	.048	.542**	1		
	.00+0	.017	.152	.084	1.000	.673	.000			
	80	80	80	80	80	80	80	80		
9 Reduce risks of doing business	.299**	.131	.496**	.486**	.342**	-.167	.461**	.462**	1	
	.007	.247	.000	.000	.002	.139	.000	.000		
	80	80	80	80	80	80	80	80	80	
10 Promotes transparency in doing business	.234*	.247*	.445**	-.130	-.103	-.159	.115	.279*	.667**	1
	.036	.027	.000	.249	.365	.160	.309	.012	.000	
	80	80	80	80	80	80	80	80	80	80

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Table 3: Correlation showing Graduate students' motives for Creating New Venture

	Variable	1	2	3	4	5	6	7	8	9	10
1	strive to achieve own dream	1									
2	Eagerness to start own business	.624**	1								
		.000									
		80	80								
3	Like doing things differently to achieve results	-.484**	-.497**	1							
		.000	.000								
		80	80	80							
4	Seize business opportunity to create wealth	.295**	.287**	-.143	1						
		.008	.010	.207							
		80	80	80	80						
5	Looking for business with higher income	-.735**	-.759**	.592**	-.273*	1					
		.000	.000	.000	.014						
		80	80	80	80	80					
6	doing challenging tasks make me get better	-.294**	-.595**	.122	-.171	.710**	1				
		.008	.000	.279	.129	.000					
		80	80	80	80	80	80				
7	Always looking out for new opportunities	-.304**	-.318**	.109	.317**	.560**	.759**	1			
		.006	.004	.336	.004	.000	.000				
		80	80	80	80	80	80	80			
8	take responsibility and ownership of things	-.145	.417**	-.207	-.139	-.086	-.248*	-.248*	1		
		.199	.000	.065	.218	.449	.026	.027			
		80	80	80	80	80	80	80	80		
9	Prefer to be my own boss	-.484**	-.035	-.212	-.143	.343**	.445**	.472**	.546**	1	
		.000	.760	.059	.207	.002	.000	.000	.000		
		80	80	80	80	80	80	80	80	80	
10	Challenge by successful entrepreneurs	-.244*	-.231*	.766**	-.189	.109	-.175	-.180	-.089	-.281*	1
		.029	.039	.000	.093	.337	.121	.109	.433	.011	
		80	80	80	80	80	80	80	80	80	80

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

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

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Table 4: Correlations of Showing Challenges of Business Environment on Graduates' New Venture Creation

Variables		1	2	3	4	5	6	7	8	9	10
1	Difficulty to access finance by new entrants	1									
2	Emerging high interest rates	.565**	1								
		.000									
		80	80								
3	High conditions for bank facility	.386**	.821**	1							
		.000	.000								
		80	80	80							
4	Low per capital income	.011	.169	.170	1						
		.922	.133	.131							
		80	80	80	80						
5	Bureaucratic bottlenecks in government agencies	.247*	.292**	.155	.403**	1					
		.027	.009	.171	.000						
		80	80	80	80	80					
6	Multiple taxation policy	-.162	-.317**	-.202	.073	.364**	1				
		.152	.004	.072	.521	.001					
		80	80	80	80	80	80				
7	Increasing cases of insecurity	-.404**	-.349**	-.032	.168	.041	.667**	1			
		.000	.002	.780	.137	.719	.000				
		80	80	80	80	80	80	80			
8	High exchange rate	-.180	-.099	.032	-.058	-.166	.146	.356**	1		
		.111	.380	.778	.608	.140	.197	.001			
		80	80	80	80	80	80	80	80		
9	High inflation trend	-.083	.099	.301**	.240*	-.106	-.203	.069	.261*	1	
		.465	.382	.007	.032	.350	.070	.543	.019		
		80	80	80	80	80	80	80	80	80	
10	Weak governance discourages investors	-.173	.503**	.321**	.237*	.233*	-.006	.060	.156	.175	1
		.125	.000	.004	.034	.038	.955	.599	.168	.121	
		80	80	80	80	80	80	80	80	80	80

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

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

Discussion of Findings

Number of divergent positions by researchers decried the lack of well-articulated empirical evidence to supports the impact of entrepreneurship on development in Low Income Countries (Banerjee & Duflo, 2011, Kaijage & Wheeler, 2013, Moroz & Hindle, 2012, Sautet, 2011). Contrary to this allusion, researchers of entrepreneurship development (Lena & Wong, 2004, Serger et al, 2011) equally believe the process of starting new businesses is associated with the entrepreneur's personality, socio-cultural, age, education, demographic antecedents, family and university-related factors. These criticisms and scientific firework notwithstanding business environment is critical preconditions for emerging businesses. The factorial analysis that delineated the characteristics affirmed the importance of business environment to the emergence of new venture enterprises. The coefficients established the interdependence between the constituents of business environment and creation of new ventures. Competitiveness, skilled labour, political stability, and accessible venture capital among others are some dominant characteristics of business environment which could determine intentional behaviour responsible for new start-ups. Individual intentional founding behaviour such as achieve one's dream, achieve great results, investing in business opportunity to create wealth, doing challenging tasks are predicated on existing conditions of the economic environment. New ventures are not just source of

employment, wealth creation, income distribution but are sine-qua-non to national technological advancement, industrialization and economic development (Lena & Wong, 2008, Kuttim, Kallaste, Venesaar & Kiis, 2013, and Ikpesu, 2015). New ventures have been globally acknowledged as an alternate career path for the unemployed populace. However, new entrants ambitious drive for new opportunities, scouting for business with high income and being inspired by successful entrepreneurs to be one's boss could be constrained by institutional, social, political, and legal environments. External environment created by the government has causative consequences on the growth of entrepreneurialism and could actively change the business cycles, institution and market forces. The macro-economic policy interventions of government largely target infrastructural developments to create an entrepreneurial environment directly influence the growth of capitalism. Despite the relevance of power and transportation development to economic growth the government investments still remain low. The total infrastructure stock of Nigeria estimated at 35 percent of the GDP has been grossly inadequate in contrast to emerging economic challenges across the country. In most cases, the economy becomes susceptible to uncertainties, high costs of doing business, lower business performance and profitability. Consistent infrastructure development investment is therefore more than necessary to expand the micro-economic sector and make the business environment more attractive to new entrants. Economic policy was

hypothesized to have significant relationship with the emergent new ventures. Scientific outcomes further provide confirmatory evidence which supported economic policies to be the determinant of business environment. Hence, the Economic Recovery and Growth Plan (ER& GP 2017 -2020) had been proposed to invest $3 trillion in the critical sector leveraging the private sector capital and as well borrow $30billion in its public-private partnerships (PPP) initiatives to build Mambilla hydropower plant, railway and road (FGN, 2017) to boosts the economy. Fiscal and economic policies as currently witnessed in Nigeria should ably support, stimulate and coordinate private sector participation in the micro-economic sector. In addition, the made in Nigeria, ban on imports of consumable goods and services economic policy has certainly increased local production, increase consumption of locally made goods and services thus making the entrepreneurial environment on the other hand investment driven and competitive. In recent times, researchers have supported the importance of enabling conditions and as well as using public institutions to explain cross – country economic growth differences (Kaijage & Wheeler, 2013, Rodrik, 2003, World Bank, 2012 and Acemoglic, 2001). On the other hand, weak public institutions, governance and corruption have negated business integrity and consequently obstruct the growth of small businesses. The Treasury Single Account fiscal policy strengthen institutions against frauds, corruption and directly impact the home growth economy, restore trust, promote

transparency, improve business practices to minimize risks in business. Such supportive conditions undoubtedly underline the relevance of entrepreneurship to national economic growth. Coefficients representing the challenges of the business environment were statistically significant. Institutional bureaucracies and weak governance are prominent obstacles face by entrepreneurs which most times have raised the cost of doing business unhealthy and the environment has been major nag to the new entrants' entrepreneurial expedition in Nigeria where most young adults are largely unemployed with low per capital income and limited access to finance. Economic environment which is the aggregate capacity of the economic system has suffered devastating insecurity of different dimensions threatening government economic policies have resulted in decline of national Gross Domestic Product, high interest rate and exchange rate. This precarious situation in addition to weak consumption, inflation, multiple taxations, and unstable political conditions have negative consequences on investments and emerging new ventures.

Conclusions and Recommendations

Business environment as a cumulative consequence of the macro-economic environment is preconditions for founding new ventures. The macro- economic environment is a prominent predictive factor of individual intentional founding behaviour. Thus, the characterizations of the macro-business environment importantly provide supportive conditions for entrepreneurship to thrive and

contribute to national development. These characteristics which are investment-driven macro-economic policies and political stability dominant in a country basically have direct relationship with new entrant's eagerness to start new venture, to achieve their dream, achieve great results and doing things differently to create wealth. Consequently, the ambitious drive of new entrants for business opportunities with high probability of income and desire to be one's boss have been constrained by institutional, social, political, and legal environments. On the other hand, infrastructural developments increasingly step up entrepreneurial environment which directly influence the growth of capitalism. Therefore, consistent investment in the power and transportation sub-sector propels the micro-economic growth. Fiscal and economic policies which include the made in Nigeria, ban on imports of consumable goods and services economic policy have positively increased local production, increased consumption of locally made goods and services thus making the entrepreneurial environment on the other hand investment driven and competitive. The Treasury Single Account fiscal policy implemented by government strengthens institutions against frauds and corruption and restored trust, improved business practices to minimize risks and promoted transparency in governance which assure investors of Nigeria economic environment. Despite the import of government fiscal and economic policies in recent times the economic environment is challenged with devastating insecurity of

different dimensions, high interest rate and exchange rate, weak consumption, inflation, multiple taxations, and unstable political conditions which have negative consequences on investments and emerging new ventures. Institutional bureaucracies and weak governance have been other prominent challenges in Nigeria face by entrepreneurs and starting new entrants. Therefore, the various economic and fiscal policies should be rethinking to introduce incentives that will attract young populace who are mainly unemployed into small businesses. Aspiring businessmen should be granted special bank interest rates, exchange rate lower than the current market rate while introducing tax holiday to promote capitalism in Nigeria

References

Ajzen, I. (1991). The theory of planned behaviour. *Organizational Behaviour and Human Decision Processes.* 50. http//dx.doi.org/101016/0749-5978(91)90020-T

Aluoluo,W. (2015). The prediction of entrepreneurial intentions among preparatory year Saudi students: Testing an Intent Model. *Proceedings of the 3rd International Conference on Innovation and Entrepreneurship*. Durban, South Africa.

Babbie, E. & Mouton, J. (2001). *The practice of social research*. Oxford: Oxford University Press

Barzlay, M. (1993). The single case study as intellectually ambitious inquiry. *Journal of public administration research and theory,* 3(3).

Basaiamoit, R.V. & Wagner, K. (2015). An auto-ethnographic perspective of social entrepreneurship focused student case-competitions. *Proceedings of the 3rd International Conference on Innovation and Entrepreneurship*. Durban, South Africa.

Bird, B.J. (1988). Implementing entrepreneurial ideas: the case for intention. *Academy of Management Review,*13 (3)

Bosma, N & Harding, R. (2006). GEM 2006 Summary Results, Bason College, USA. London Business School, UK

Clifford, L. (2013). Business environment analysis: Nigeria. http//www.cliffordlin.com/business-environment-analysis-Nigeria.

Federal Government of Nigeira (2018). Economic Recovery and Growth Plan. Ministry of Budget and National Planning, Abuja

Goktan, A.B., & Miles, G. (2011). Innovation speed and readiness: are they related. *Management Decision.* 49 (4).

Ikpesu, O.C. (2015). Socio-cultural differences and formation of entrepreneurial mindsets amongst students in Universities. Proceedings of the 3rd International Conference on Innovation and Entrepreneurship. Durban, South Africa.

Kaijage, E.& Wheeler, D. (2013). Supporting entrepreneurship education in East Africa. Report Presentation to Stakeholders, Kenya.

Kuratko, D. F. (2005). Entrepreneurship education: emerging trends and challenges for the 21 st century. Muncie, Ball State University

Kuttim, M., Kallaste, M. Vennesaar, U. & Kiis (2013). Entrepreneurship education at university level and students entrepreneurial intentions. Elsevier- *Procedia Social and Behavioral Sciences* . www.sciencedirect.com
Lena, L. & Wong, P. (2008). Attitude towards entrepreneurship education and new venture creation. NUS Entrepreneurship Centre Working Papers, NUS.
McMullan, W. ED. & Long, W.A. (1987). Entrepreneurship education in the nineties. *Journal of Business Venturing* 2:
Moroz, P.W. & Hindle, K. (2012). Entrepreneurship as a process: Toward harmonizing multiple perspectives. *Entrepreneurship Theory and Practice* 781-818.
Mulders, M. A. W., & van den Broek, C.P.J.A. (2012). Entrepreneurial decision making and the effect on business models. Breda, The Netherlands: Avans University of Applied Sciences.
Ollila, S. & Williams-Middleton, K. (2011). The venture creation approach: integrating entrepreneurial education and incubation at the university. *Int. J. Entrepreneurship and Innovation Management, vol13,No 2*
Sautet, F. (2011). Local and systemic entrepreneurship: Solving the puzzle of entrepreneurship and economic development. *Entrepreneurship Theory and Practice*
Seale, C., Gobo, G., Gubrium, J. F. & Silverman, D. (2004). *Qualitative research practice.* SAGE
Trimi, S. & Berbegal-Mirabent, J. (2012). Business model innovation in entrepreneurship. *International Entrepreneurship Management Journal*
United Nations Development Programme (2004). Unleashing entrepreneurship: Making business work for the poor. NY (UNDP).
United Nations Development Programme (2008). Creating value for all: Strategies for doing business with the poor. NY (UNDP).
Vennesaar, U. Kallaste, M. & Kuttim, M. (2013). Factors influencing students venture creation process. Elsevier - *Procedia Social and Behavioral Sciences.* www.sciencedirect.com
World Bank (2012). Doing Business Report. Washington: World Bank.
Yin, R.K. (2009). *Case study research: design and methods (4th ed.).* Thousand Oaks, CA: SAGE

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Determining The Impact of Entrepreneurial Adversity and Psychological Capital on Entrepreneurial Resilience among Entrepreneurs of Pakistan

Dr. Bahadur Ali Soomro
Visiting Faculty
Area Study Centre, Far East and Southeast Asia, University of Sindh, Jamshoro, Pakistan
bahadur.ali@scholars.usindh.edu.pk

Dr. Naimatullah Shah
Professor
Department of Public Administration, University of Sindh, Jamshoro & College of Business Administration, Al Yamamah University, Riyadh, KSA
naimatullah.shah@usindh.edu.pk

Sadia Anwar
Assistant professor
Institute of Commerce, University of Sindh, Jamshoro, Pakistan
sadiahoman@yahoo.com

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Abstract

The entrepreneurship is stated as a highly stressing occupation which has frequently been involved in the risks and workloads.Similarly, entrepreneurs are a valuable asset to bring out prosperity in the economy. In this respect, it is a necessity to examine the factors which may affect entrepreneurs. The current study proposes to investigate the impact of entrepreneurial adversity and psychological capital on entrepreneurial resilience among entrepreneurs of Pakistan. A conceptual model as developed on the basis of such factors. The study employed a survey questionnaire to collect the facts from the entrepreneurs of Pakistan. Hence, the data is analysed through SPSS and AMOS version 26.0 for windows. The overall findings emphasized as a negative and insignificant impact of entrepreneurial adversity on entrepreneurs' well-being.

Henceforth,the relationship between entrepreneurial adversity and entrepreneurial resilience as mediated through the locus of control (psychological capital). The findings of the study may contribute for policy makers and planners to think over the role of psychological as well as entrepreneurial adversity's factors towards bringing out the well-being among the entrepreneurs. Lastly, the study may contribute to the field literature particularly contextual perspectives in Pakistan.

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Introduction

Entrepreneurs are the contributors and recognized as the essential asset for the economy (McMullen and Shepherd, 2006). Entrepreneurs provide the benefits and uplifting the society through creating wealth as well as growth and awareness of risk factor. Entrepreneurs start their business by bearing in mind the significant chances of a geat failure. According to Shane *et al.* (2003); Baum and Locke (2004) that entrepreneurs are stated as fervent and passionate about their ventures/businesses despite highly unprotected to adverse affecting conditions concerning fear, stress, and anxiety (Chen *et al.,* 2009). After bearing such the unfavourable circumstances, they never discourage and continue their opportunity recognition; decision-making; and entrepreneurial judgment. Indeed, entrepreneurs select to confront the risks, stress and adversity by involving in entrepreneurial activities due to certain dispositional traits and psychological capital that empowers them to undergo the high levels of ambiguity/uncertainty as well as other entrepreneurial adversity (Brandstatter, 1997; Patel & Thatcher, 2014). Psychological resilience fits within entrepreneurial perceptions inquiry. Psychological resilience is explained as the ability of individuals to manage magnificently with substantial revolution, risk or adversity (Lee & Cranford, 2008, p. 213). Although there are numerous definitions of psychological

resilience are available in the domain literature. The most common definition of Masten, Best, & Garmezy (1990) who underlined it as the practice of, the ability for, or effect of fruitful adaptation notwithstanding confusing or intimidating situations. On the other hand, Luthar, Cicchetti, & Becker (2000, p. 543) highlighted resilience as an active practice encircling positive adaptation within the setting of substantial adversity.

Besides, entrepreneurial uncertainty and stress establish a conceptual foundation for most theories on entrepreneurs (McMullen & Shepherd, 2006), but little conscious about actual entrepreneurial experiences of adversity (Jennings & McDougald, 2007). To such extent, there is a dire need of empirical evidence to explore such the entrepreneurial occurrence (Zachary & Mishra, 2011). The association of such event is with entrepreneurial resilience and adversity (Krueger, 2008; Ayala & Manzano, 2014). If individuals have more knowledge about psychological capital and resilience of entrepreneurs would also learn about effectiveness, eventually venture growth, entrepreneurial success, effort, and performance in an indirect way (Foo *et al.,* 2009; Baron *et al.,* 2013). Consequently, the topics of entrepreneurial resilience and psychological capital are needed to investigate more and more due to massive importance in the entrepreneurial process and growth. Taken into account, in the current study the

researchers taken an interest in the application of attribution theory by determining the impact of entrepreneurial adversity and psychological capital on entrepreneurial resilience among entrepreneurs of Pakistan.

Literature review and conceptualization

The entrepreneurial activity is a risky instance, where individuals are to bear high risks as well as high rewards, in opposite to frequently remunerated workers who have lower risks not only in the success but also the failure of their venture/business. Self-Employment includes the increased levels of role ambiguity, stress, higher risks, discriminating emotional energy as well as potential rewards (Cardon and Patel, 2013). In the perception of Bird (1989), the process of entrepreneurship is occupied with ambiguous and adverse situations where the individual has moderately or slight control. A significant cause of entrepreneurial adversity is financial settings/ revenue from the corporation/business. Similarly, seminal work of Pollack *et al.* (2012) strongly recommended that the economic recession may be the single leading element that is affiliated with entrepreneurial stress. Among the entrepreneurs, the level of income significantly and positively correlated with their health and well-being (Cardon & Patel, 2013). By applying a survey questionnaire among small business owners, Fatoki (2018) investigated a positive and significant association

between individuals' entrepreneurial resilience and organisational success. In the same manner, Korber & McNaughton (2017) contributed six research streams at the juncture of entrepreneurship and resilience; resilience as characteristics of entrepreneurial ventures and individuals; resilience as a trigger for entrepreneurial behaviors; intentions as attractive organizational resilience, entrepreneurial firms raising macro-level (communities, regions, and economies) resilience, resilience in the milieu of entrepreneurial failure, and resilience as a practice of transformation and recovery.

As Baluku *et al.* (2018) pointed out that the entrepreneurial employment comprises of undertaking business with other people of the different ranks together with customers, partners, investors, and employees; henceforth, lacking the entrepreneur is to display a great deal of social capability to connect with others. Furthermore, the study revealed a positive association between psychological capital, social competence, and performance. Also, entrepreneurs' wellbeing, satisfaction, and commitment were found to be significant predictors of an entrepreneurial career. Regarding the same aspect, Choi & Lee (2014) underlined a positive and significant association of psychological capital with work happiness, turnover intention, subjective, and perceived performance. In Pakistan, psychological capital playing as moderating role to develop the

relationship between occupational burnout and the performance of the faculty of technical institutes (Rehman *et al.,* 2017).

In a sequel, entrepreneurship is an extremely stressing occupation of bearing risks and often challenging workloads; thus, needing mental inputs (psychological capital). Keeping in view; the researchers developed a conceptual model (figure 1) which determines the relationship between entrepreneurial adversity as a financial setback and entrepreneurs' wellbeing.

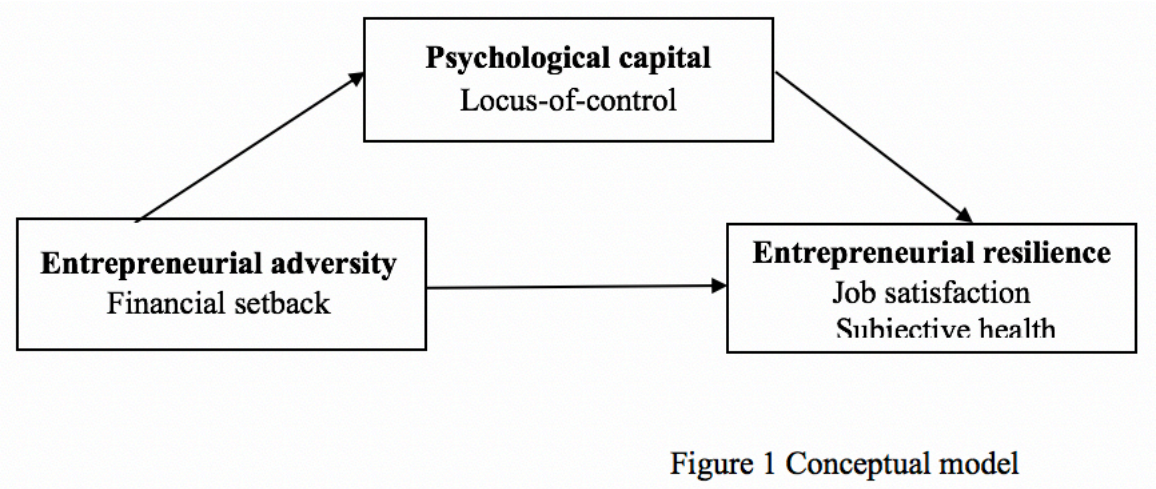


Figure 1 Conceptual model

Resilience factor is associated with individuals' features who control setbacks which are connected to their life as well as careers (Zautra *et al.,* 2010). In the field of psychology, such factor has been applied more than 50 years (Rogoff *et*

al., 2004); unfortunately, it has been given the least concentration mainly in the field of entrepreneurship being an association of unique resilience quality of entrepreneurs (Sutcliffe & Vogus, 2003). Although, the environment of entrepreneurship has a deep connection with extreme lows and highs (Shane & Khurana, 2003). Entrepreneurial resilience mentions to the capacity of the entrepreneur to overwhelm predominantly in problematic situations. Such a factor is regarded as a dynamic variation development that permits entrepreneurs to look ahead into the future in spite of severe financial setbacks (Windle *et al.,* 2011). From side to side, such the process makes capable to entrepreneurs of confronting an uncertain/ambiguous future with an optimistic approach relatively with the emotional state of vulnerability, apathy, desperation as well as fear (Pollack *et al.,* 2012; Heinze, 2013; Ayala & Manzano, 2014).

Resilience specifies a positive adaptation within the milieu of significant adversity (Luthar *et al.,* 2000). Thus, continued well-being in the face of difficulty can be observed as a sign of entrepreneurial resilience.thus, as concerned with the lesser the effect of adverse entrepreneurial circumstances on the well-being of entrepreneurs; the more extensive their resilience. A positive impact is described as a signal for coping capabilities and tolerance for high levels of stress. From the above discussion, we proposed the following hypothesis

for investigation. Further, we begin by testing the following hypothesis by our data:

H1: Entrepreneurial adversity has a negative association with entrepreneurs' well-being.

Entrepreneurial resilience is a result of person-entrepreneurial fit, i.e. the communication between entrepreneurs and their atmosphere (Markman & Baron, 2003; Ayala & Manzano, 2014). The researchers may suppose that the consequences of resilience would be contingent on specific psychological potentials in the aspect of adversity. According to Baron *et al.* (2013), the psychological capital was exposed to be significantly and positively related to subjective well-being and negatively connected with perceived stress. It is a strong belief that the locus of control as psychological capital can support to entrepreneurship resilience and management.

Locus of control encompasses the insight of having personal control and not being at the compassion of external situations or destiny. It is associated with concerns of duty and culpability (Rogoff *et al.,* 2004). The individuals with a high internal locus of control incline to be more obstinate, to face more to challenges,

and to prove themselves as a cradle of their victory (Kirkcaldy *et al.,* 2002). An internal locus of control is correlated with higher levels of work satisfaction as well as general health (Kirkcaldy *et al.,* 2002). On the other hand, the locus of control was confirmed as a large percentage of the inconsistency in work satisfaction among small industry holders (Owens *et al.*, 2013). Besides, there is a positive and significant association between locus of control and emotional resilience; risk-tolerance; and tolerance for financial insecurity (Owens *et al.,* 2013). Simultaneously, the high internal locus of control can be challenging. Self-employment consists of meaningfully more work hours and struggle, which also means further stress and strain, and such can lead to possibly stress-related severe physical health concerns (Cardon & Patel, 2013).

Furthermore, there is a little positive and significant association between business success among self-employed and internal locus of control (Rauch & Frese, 2000; Owens *et al.* 2013). Even though a direct impact of locus of control on entrepreneurial wellbeing as well as the success that is not forthright, moderation influences as applied to increase our consideration of an effect of locus of control on entrepreneurial consequences. Meanwhile, such communicative impact, a study by Hmieleski & Carr (2008) demonstrates that psychological capital condensed the adverse impact of work tension on job satisfaction among

entrepreneurs. Similarly, a significant moderating effect of locus of control on the stress-strain association among managers as examined (Rahim, 1996). Hence, in the current study; we proposed the following hypothesis:

H2: The relationship between entrepreneurial adversity and entrepreneurial resilience is mediated by locus of control.

Research methods

The base of the current study is on a quantitative method or deductive approach. The researcher collected cross-sectional data as to fulfil the aim and objectives of the study.

Data collection and sampling

We employed a survey questionnaire for obtaining the response of the participants. The questionnaire was adapted from the relevant literature. The questionnaire language was in English. The respondents of the study were the individuals from the vendors of a business who supported/managed or started a new business. A random technique employed to target/trace the respondents from Pakistan. We distributed a total of 500 samples individually. In return, we

collected 260 raw samples with a response rate of 52 percent. After filtering the data, 240 valid cases have proceeded for final analysis.

Measures

Entrepreneurial resilience- Entrepreneurial resilience is an outcome /dependent variable of the study. Such a factor is based on two factors including job satisfaction and subjective health. These items for these factors were adapted from the study of Bulmash (2016).

Job Satisfaction- This factor was taken from the study of Baron et al. (2012). The sample item of scale is "On the whole, how satisfied you are with the work, and what you would like to say as you are very satisfied, moderately satisfied, a little dissatisfied, or very dissatisfied?". A five-point Likert scale where response range (very dis-satisfied=1 to very satisfied=5) as appropriately observed.

Subjective health. This factor as borrowed from the study of Baron *et al.* (2012). The sample item of the scale was"Would you say your health, in general, is excellent, good, fair, or poor?". A five-point Likert scale where response range (very dis-satisfied=1 to very satisfied=5) was applied to record the responses.

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Findings

Descriptive statistics and reliability calculation

We calculated the descriptive statistics to observe the distribution of the respondents. The scores for mean as noted 2.35 to 3.12. The values of standard deviation remained 1.012 to 1.557 (Table 1). Besides, the internal consistency among all items (overall), and individuals' factors as excellent (Table 1). Such excellency of score assured that the questionnaire found as reliable. In the last, we also confirmed the real correlation among all the factors. As a result, there was no any matter of multicollinearity, and all coefficients were within the satisfactory ranges (Table 1).

Table 1 Descriptive statistics, reliability and correlations (N=240)

	Variables	M	SD	α	1	2	3	4
1	Job satisfaction	2.98	1.123	0.861	---			
2	Subjective health	3.12	1.012	0.784	0.390**	---		
3	Locus-of-control	286	1.342	0.817	0.334**	0.432**	---	
4	Financial setback	2.35	1.557	0.839	0.099	0.296**	0.354**	---

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).
Note: M=mean; SD=standard deviation, α=Cronbach's alpha reliability

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

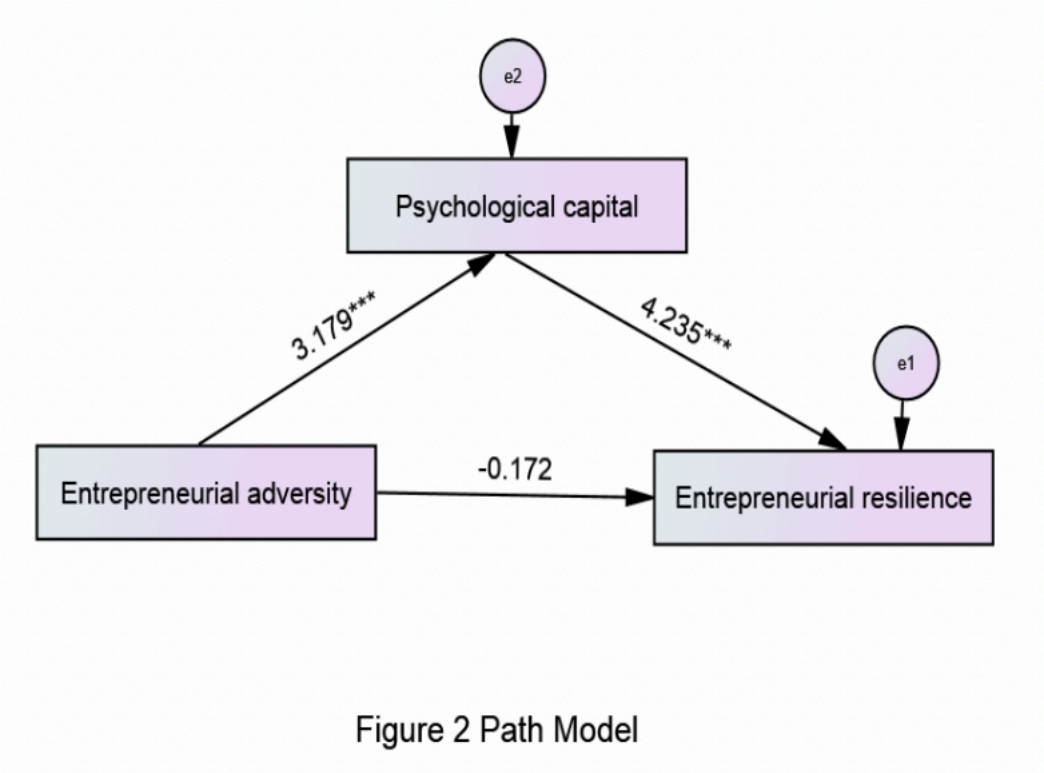


Figure 2 Path Model

We employed path analysis through SEM to examine the relationship between the constructs. Such scores (S.E=0.035; C.R=-0.172; p>0.05) (Figure 2 and Table 2) underlined as a non-significant association between entrepreneurial adversity and entrepreneurial resilience. Hence, H1 as accepted. Similarly, the weight showed (S.E=0.120; C.R=-3.179; p<0.05 and S.E=0.231; C.R=-4.235; p<0.05) (Table 2). Therefore, H2 also accepted. In other words, an indirect impact of entrepreneurial adversity on entrepreneurial resilience observed in the presence of psychological capital. This reflection demonstrated that psychological capital is a

major factor that mediated the relationship between entrepreneurial adversity and entrepreneurial resilience.

Table 2 Path analysis

	Dependent variable	Path	Independ variable	Estimate	S.E	C.R	P-value	Result
1	Entrepreneurial resilience	<---	Entrepreneurial adversity	-0.006	0.035	-0.172	0.864	Non-significant
2	Psychological capital	<---	Entrepreneurial adversity	0.679	0.120	3.179	0.000	Significant
3	Entrepreneurial resilience	<---	Psychological capital	0.787	0.231	4.235	0.000	Significant

Discussion and conclusion

The current study investigated not only a direct impact of entrepreneurial adversity on entrepreneurial resilience but also an indirect impact and of entrepreneurial adversity on entrepreneurial resilience in the presence of psychological capital. This association confirmed among entrepreneurs of Pakistan. To such an extent; a conceptual framework as developed by a vigorous literature review. Based on such context, some hypotheses developed for investigation properly. The researchers employed a survey questionnaire is taken from the pertinent literature. We applied a random sampling technique for the ethical concerns from the researchers. The respondents as contacted, and consent

acquired from the respondents for taking part in the study. We initially obtained 260 samples with a response rate of about 52 per cent. In the last, 240 valid cases employed to infer the outcomes.

By employing the path analysis through SEM, the results for H1 as suggested an insignificant relationship between entrepreneurial adversity and entrepreneurial resilience. As a result, H1 supported. Such the association has consisted with the previous literature like Sutcliffe & Vogus (2003); Zautra *et al.* (2010); Windle *et al.* (2011); Bulmash, 2016). Such the non-significant among the Pakistani entrepreneurs may reflect that entrepreneurs' capacity could not mostly overwhelm in problematic situations. Various dynamics differences may not allow entrepreneurs to go ahead for future business and financial setbacks (Windle *et al.,* 2011). As a consequence, the continued well-being in the face of difficulty can be observed as a sign of entrepreneurial resilience among the entrepreneurs.

Henceforth, the H2, the related results as suggested that psychological factor is a protagonist factor that develops the association between entrepreneurial adversity and entrepreneurial resilience. In other words, a positive relationship between entrepreneurial adversity and entrepreneurial resilience is mediated by

psychological capital. Thus, H2 as supported by the data. These associations are supported by various scholars of the fields including of Kirkcaldy *et al.* (2002); Rogoff *et al.* (2004); Baron *et al.* (2013); Cardon & Patel, 2013); Owens *et al.* (2013); Bulmash, 2016). Such the mediatory effects of psychological capital between entrepreneurial adversity and entrepreneurial resilience may be taken as resilience is depending on certain mental qualities in the face of adversity. As Baron *et al*. (2013) strongly recommended that psychological capital has a good relationship with subjective well-being. Such confirms a strong belief that the locus of control as psychological capital to be the best contributor to entrepreneurial resilience. The entrepreneurship is known as a highly stressing occupation which frequently involved in the risks as well as workloads. Thus, demanding mental inputs (psychological capital). In this way, the locus of control developed such the associations.

In conclusion, our model suggested that there is a negative and insignificant impact of entrepreneurial adversity on entrepreneurs' well-being. Besides, the relationship between entrepreneurial adversity and entrepreneurial resilience is mediated by the locus of control (psychological capital) among the entrepreneurs of Pakistan. These outcomes may contribute for policy makers and planners to think about the major factors including entrepreneurial adversity; entrepreneurs' well-being; entrepreneurial resilience and locus of control that are hugely

associated with the entrepreneurs. Finally, the outcomes of the study may be beneficial for the researchers to focus more on these factors, particularly in Pakistan.

References

Ayala, J. C., & Manzano, G. (2014). The resilience of the entrepreneur, influence on the success of the business: A longitudinal analysis. *Journal of Economic Psychology*, 42, 126-135.

Baluku, M. M., Kikooma, J. F., Bantu, E. & Otto, K. (2018). Psychological capital and entrepreneurial outcomes: the moderating role of social competences of owners of micro-enterprises in East Africa. *Journal of Global Entrepreneurship Research,* 8(26), 1-23.

Baron, R. A., Franklin, R. J., & Hmieleski, K. M. (2013). Why entrepreneurs often experience low, not high, levels of stress: the joint effects of selection and psychological capital. *Journal of Management,* 0149206313495411.

Baron, R. A., Hmieleski, K.M., & Henry, R. A. (2012). Entrepreneurs' dispositional positive affect: the potential benefits-and potential costs-of being "up". *Journal of Business Venturing,* 27, 310-324.

Baum, J. R., & Locke, E. A. (2004). The relationship of entrepreneurial traits, skill, and motivation to subsequent venture growth. *Journal of Applied Psychology*, 89, 587-598.

Bird, B. (1989). *Entrepreneurial behavior.* Scott Foresman, London.

Brandstatter, H. (1997). Becoming an entrepreneur-A question of personality structure?. *Journal of Economic Psychology*, 18, 157-177.

Bulmash, B. (2016). Entrepreneurial resilience: locus of control and well-being of entrepreneurs, *Journal of Entrepreneurship & Organization Management,* 5(1), 171, doi:10.4172/2169-026X.1000171

Cardon, M. S., & Patel, P. C. (2013). Is stress worth it? Stress-related health and wealth trade-offs for entrepreneurs. *Applied Psychology,* 64, 379-420.

Chen, X. P., Yao, X., & Kotha, S. (2009). Passion and preparedness in entrepreneur business plan presentations: A persuasion analysis of venture capitalists' funding decisions. *Academy of Management Journal,* 52, 199-214.

Choi, Y. & Lee, D. (2014). Psychological capital, big five traits, and employee outcomes. *Journal of Managerial Psychology*, 29(2), 122-140.

Fatoki, O. (2018). The impact of entrepreneurial resilience on the success of small and medium enterprises in South Africa. *Sustainability,* 10, 1-12.
Foo, M. D., Uy, M. A., & Baron, R. A (2009). How do feelings influence effort? An empirical study of entrepreneurs' affect and venture effort. *Journal of Applied Psychology,* 94, 1086-1094.
Heinze, I. (2013). Entrepreneur sense-making of business failure. *Small Enterprise Research*, 20, 21-39.
Hmieleski, K. M., & Carr, J. C. (2008). The relationship between entrepreneur psychological capital and new venture performance. *Frontiers of Entrepreneurship Research,* 28(4), 1-15.
Jennings, J. E., & McDougald, M. S. (2007). Work-family interface experiences and coping strategies: Implications for entrepreneurship research and practice. *Academy of Management Review,* 32, 747-760.
Kirkcaldy, B. D., Shephard, R. J., & Furnham, A. F. (2002). The influence of type A behaviour and locus of control upon job satisfaction and occupational health. *Personality and Individual Differences,* 33, 1361-1371.
Korber, S. & McNaughton, R. B. (2017). Resilience and entrepreneurship: a systematic literature review. *International Journal of Entrepreneurial Behavior & Research,* https://doi.org/10.1108/IJEBR-10-2016-0356.
Krueger, N. (2008). Entrepreneurial resilience: real and perceived barriers to implementing entrepreneurial intentions. *Working Paper*, SSRN, downloaded from: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1155269.
Lee, H. H., & Cranford, J. A. (2008). Does resilience moderate the associations between parental problem drinking and adolescents' internalizing and externalizing behaviors?: A study of Korean adolescents. *Drug and Alcohol Dependence,* 96(3), 213-221.
Luthar, S. S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development,* 71(3), 543-562.

Markman, G. D., & Baron, R. A. (2003). Person-entrepreneurship fit: why some people are more successful as entrepreneurs than others. *Human Resource Management Review,* 13, 281-301.
Masten, A. S., Best, K. M., & Garmezy, N. (1990). Resilience and development: contributions from the study of children who overcome adversity. *Development and Psychopathology*, 2(04), 425-444.
McMullen, J. S., & Shepherd, D. A. (2006). Entrepreneurial action and the role of uncertainty in the theory of the entrepreneur. *Academy of Management Review,* 31, 132-152.
Owens, K. S., Kirwan, J. R., Lounsbury, J. W., Levy, J. J., & Gibson, L. W. (2013). Personality correlates of self-employed small business owners' success. *Work,* 45, 73-85.
Patel, P. C., & Thatcher, S. M. (2014). Sticking it out: individual attributes and persistence in self-employment. *Journal of Management,* 40, 1932-1979.
Pollack, J. M.,Vanepps, E. M., & Hayes, A. F (2012). The moderating role of social ties on entrepreneurs' depressed affect and withdrawal intentions in response to economic stress. *Journal of Organizational Behavior,* 33, 789-810.
Rahim, A. (1996). Stress, strain, and their moderators: an empirical comparison of entrepreneurs and managers. *Journal of Small Business Management,* 34, 46-58.
Rauch, A., & Frese, M. (2000). Psychological approaches to entrepreneurial success: a general model and an overview of findings. In CL Cooper and IT Robertson (eds.), *International Review of Industrial and Organizational Psychology*, Wiley, UK. 101-141.
Rehman, S., Qingren, C., Latif, Y. & Iqbal, P. (2017). Impact of psychological capital on occupational burnout and performance of faculty members. *International Journal of Educational Management,* 31(4), 455-469.
Rogoff, E. G., Lee, M. S., & Suh, D. C. (2004). Who done it? Attributions by entrepreneurs and experts of the factors that cause and impede small business success. *Journal of Small Business Management,* 42, 364-376.

Shane, S., & Khurana, R. (2003). Bringing individuals back in: the effects of career experience on new firm founding. *Industrial and Corporate Change,* 12, 519-543.
Shane, S., Locke, E. A., & Collins, C. J. (2003). Entrepreneurial motivation. *Human Resource Management Review,* 13, 257-279.
Sutcliffe, K. M., & Vogus, T. J. (2003). Organizing for resilience. In Cameron KS, Dutton JE, Quinn RE (eds.), *Positive Organizational Scholarship: Foundations of a New Discipline.* San Francisco: Berrett-Koehler pp. 94-110.
Windle, G., Bennett, K. M., & Noyes, J. (2011). A methodological review of resilience measurement scales. *Health and Quality of Life Outcomes*, 9(1), 2-18.
Zachary, R. K., & Mishra, C. S. (2011). The future of entrepreneurship research: calling all researchers. *Entrepreneurship Research Journal,* 1, 1-13.
Zautra, A. J., Hall, J. S., & Murray, K. E (2010). Resilience: a new definition of health for people and communities. In JW Reich, AJ Zautra & JS Hall (eds.), *Handbook of Adult Resilience.* Guilford, New York pp: 3-29.

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Waste-preneurship: A model of Environmental benefit

Seema Potluri (corresponding author)
B.V. Phani
Industrial and Management Engineering department
Indian Institute of Technology
Kanpur (U.P.), India
seema@iitk.ac.in
bvphani@iitk.ac.in

Acknowledgment
The authors gratefully acknowledge support from Syndicate Bank Entrepreneurship Research and Training Center, IIT Kanpur

"The most dangerous kind of waste is the waste we don't recognize"-Shiego Shingo

Abstract

Considering the dire consequences of waste mismanagement in India and other countries, solicitous contribution in the domain of waste management is felt and

so the strategies and policies ought to be tailored differently for new ventures that are targeting waste management *per se*. This paper proposes a conceptualized model that demarcates and also recommends that the 'clean' aspect of green entrepreneurship be dealt differently from the 'green' aspect of it. In this sense, the 'green entrepreneurs' would be engaged in minimizing waste or employing methods to make frugal use of natural resources through green products, processes and services (the 'green' aspect of green entrepreneurship) and 'clean entrepreneurs' would be engaged in processing the inevitable waste being generated by different sources (the 'clean' aspect of green entrepreneurship). The latter type, who introduces newer and cost–effective techniques, processes and practices to address any of the components of waste management stream like collection, land filling, composting, incineration, recycling and reusing, be considered as a different type, termed as "waste-preneur". This model, which is also aligned with the principles of a circular economy business model, by way of its bi-pronged approach of 'cleaning the environment in parallel continuum with greening the environment', if incorporated, will help in refurbishing the environment faster. In order for the waste-preneur to gain operative ground in transition economies like India, a policy framework with an actionable plan has also been proposed in the paper.

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Introduction

Green entrepreneurship (Berle 1993), ecopreneurship (Bennett 1991; Schaper 2002), environmental entrepreneurship (de Bruin and Lewis 2005; Schaltegger 2005), enviropreneurship (Menon and Menon 1997) and sustainable entrepreneurship, (Melay and Kraus 2012) have been the buzzwords in entrepreneurship literature for over two decades now. With the evolving and expanding corresponding literature, they are emerging as a separate, but almost synonymous field. These above terms came into existence after the early 1970s when through the United Nations Environment programme (UNEP) Stockholm declaration, the first effort was undertaken to save the environment which drew attention to the importance of human activities to protect and sustain livable conditions on the earth (Report of the United Nations Conference on the Human Environment, 1972). Since then, today, even after more than thirty years, the planet earth is witnessing only rising environmental concerns with very little or no actions that alleviate the concerns (Friedman 2009). Research states that out of all human activity, industry is one of the largest contributors to the deterioration of environment causing climate change, resource depletion, pollution and diversity loss (Annual report of the World Resources Institute 2004; Human Development report by United Nations Development Programme 1999) thus leading to the diminishing of the sustainability of our economic systems

(Boulding 1966; Ehrlich 1970; Schmidheiny 1992; Report of the World Commission on Environment and Development: Our common future 1987; Cohen & Winn 2007), though the rapid environmental degradation has happened in the course of countries trying to achieve magnificent economic boom. In this paper, our focus is going to be on one of the primary factors of environment degradation, that is, waste generation, its present management (mismanagement) and our proposal to alleviate waste issues through ecopreneurship.

Every country's government portfolio has environment protecting laws, customized per the needs of the country, but many low and lower-middle income countries have a poor to moderate track record of implementation of these laws (Pastakia 2010). Poor implementation of environmental laws and the race for economic growth coupled with population swell, increase in urbanization and rise in standards of living (MoEF India, State of the Environment Report 2001) have led to the imbalance between generation and management of waste. Additional factors behind the shortfall of the present waste management system are inadequate manpower, scarce financial resources, lack of well formulated guidelines and policy structures, their poor implementation, and insufficient machinery required for effectively carrying out various activities pertaining to waste management (Kumar et.al. 2009). Another group of researchers feel that

even when industry is the major contributor to environmental degradation, it also has the capacity to reverse its negative impact on the environment, leading the world into the 'next industrial revolution' (Cohen and Winn 2007).We are of the opinion that such a revolution demands a shift from the customary linear economy business model that is followed by countries globally. This model implies a single-use lifestyle driven by a "take-make-dispose" approach towards consumption of resources. In view of the fast happening environmental harm, experts have proposed and are pushing countries towards a circular economy model, which is a "take-make-reduce" closed-loop approach based on reduce, reuse and recycle paradigms (Goyal et.al. 2016).In view of the facts that industry has the capacity to reverse its negative impact and the circular economy model is advantageous to the environment, we propose a model of green entrepreneurship, wherein there will be two separate functional domains –'green entrepreneurship' and 'clean entrepreneurship'. The model recommends that 'green entrepreneurs' would be engaged in minimizing generation of waste or employing methods to make frugal use of natural resources through green products, processes and services and 'clean entrepreneurs' would be engaged in processing the inevitable waste being generated by different sources. The latter type, who introduces newer and cost–effective techniques, processes and practices to address any of the components of waste management stream like collection, land filling,

composting, incineration, recycling and reusing, be considered as a different type, termed as "waste-preneur" and the process as "waste-preneurship". This model of operation, bearing a two way approach, will lead to better results than having both the tasks under one domain. The "green entrepreneurs" will be the *pollution preventers* aiming towards cleaner production while exercising source reduction of resources. The 'waste–preneurs' will essentially be the *pollution controllers* providing end-of-pipe solutions to the inevitable waste, in technologically advanced and cost effective ways. In today's state-of-affairs when the world is targeting *pollution prevention* and *pollution control* on an equal footing, the waste and pollution statistics makes it indispensible to have "green entrepreneurs" as well as "waste-preneurs". The following paper draws from data pertaining to abundant waste and its relentless generation in low and lower – middle income countries, specifically India. The paper later builds upon literature from ecopreneurship converging to infer that waste management to come to best of its forms, needs special focus by way of ecopreneurship.

Waste generation and it's deficient treatment

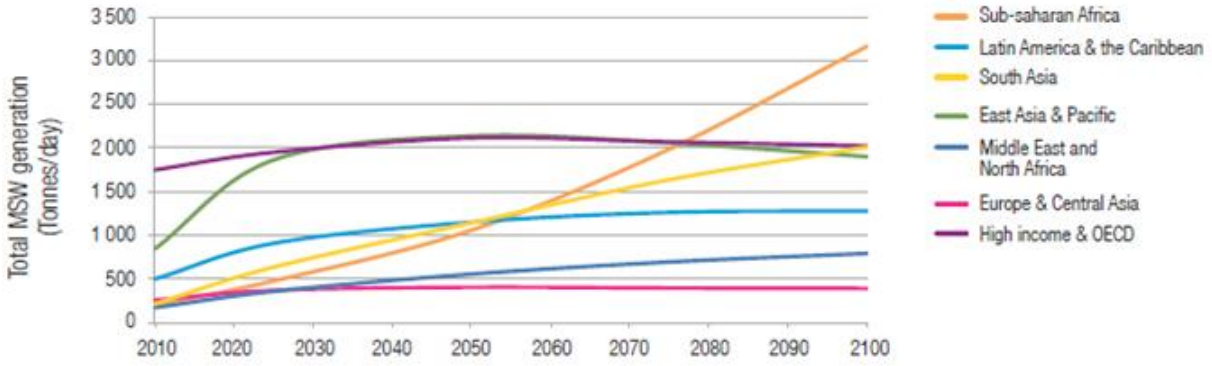
Recent years have witnessed enormous waste generation of different types across the globe. Currently, the world cities generate about 1.3 billion tonnes of solid waste in a year and this is expected to increase to 2.2 billion tonnes by 2025

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

(Wahi et. al. 2016). In this section, we have discussed the various types of waste and their mismanagement across some low and lower – middle income countries with specific insights from India.

The following figure 1 shows speculative rise in the Municipal Solid Waste (MSW) generation trend in future in the low and lower – middle income countries but shows either a slightly declining or stable trend in the high income countries (The international data situation of MSW is better than other waste types and so our study contains more data from MSW sector).

Total MSW generation by region (Figure:1)

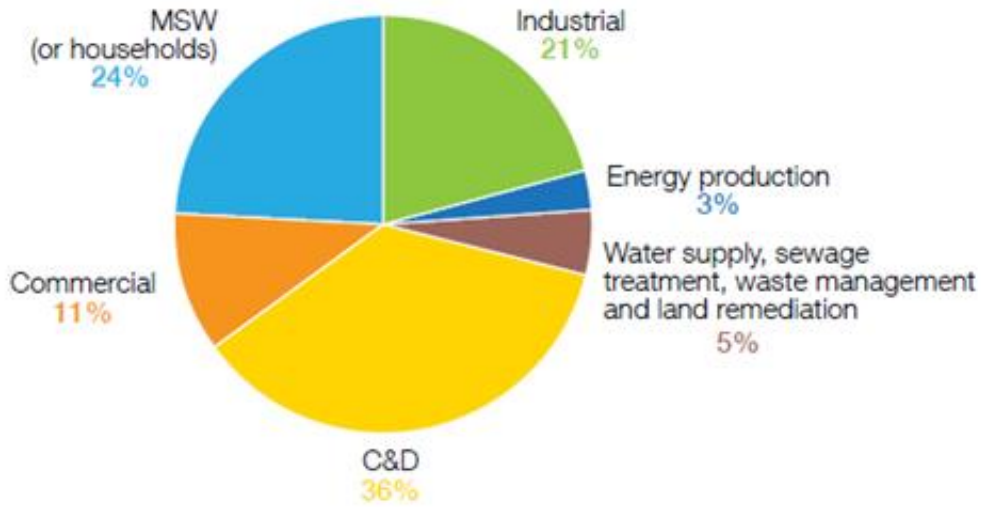


Source: The Global Waste Management Outlook report (UNEP 2015)

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

The most prevalent waste kinds that have been increasing manifold are MSW, hazardous industrial waste, plastic waste and e-waste, apart from the not-so-less nuisance types like biomass waste, biomedical waste and liquid waste. Fig. 2 gives a compilation of data on waste from different points in material and product life-cycle in OECD, countries as such data from low and lower – middle income countries is not available.

Relative quantities of waste from different sources (Figure:2)



Source: The Global Waste Management Outlook report (UNEP 2015)

Depending on the kind, all these wastes are recyclable in different proportions, the rest being either land fillable, compostable, treatable or incinerable (Central Pollution Control Board report, India 2009). But, the present major trend in low and lower–middle income countries is of either dispatching the waste to landfills or burning it. This kind of thoughtless dumping though eats up a precious portion of land every year, the imprudent disposal, handling and burning of waste also causes green house gas and other toxic gas emissions and other adverse effects on health and environment (Central Pollution Control Board report [CPCB] of 2014, titled 'Planning Commission Report of the Task Force on Waste to Energy - Volume I).

India generates 62 million tonnes (MT) of MSW per annum, out of which 43 MT is collected. Only 12 MT is treated out of the 43 MT and the rest goes to dump yards or outside the cities haphazardly (Article – India's challenges in waste management 2017). The average composition of this MSW produced is 41% organic / compostable, 40% inert and 19% potentially recyclables (Annepu 2012). As far as liquid waste is concerned, less than 1% of it is disposed scientifically in India (Chhapial 2013). 70% of all new plastic ends up as waste, disposal of which is most difficult as depending on the kind of plastic, it takes 50 years to 1 million years for disintegration. Various toxic gases are released during its production as

well as incineration. Recycling plastic increases its toxicity with each round of reprocessing (Kapoor 2014). Apart from the other wastes, electronic waste is one more major environmental hazard in India and in the rest of the world (Chhapial 2013). India was generating approximately 8 lakh tonnes of e-waste in the year 2013 and UN estimates the e-waste generation to go up to as high as 500 percent by the year 2020. As of today, 95% of e-waste is handled by the unorganized sector in India. Due to the lack of capital and technical expertise in this sector, most of the recycling is carried out in an environmentally unsafe way (Hindu Business Line 2013).

The following table 1 shows the predicted waste generation scenario in India. The foreseeable increase will be due to increase in urbanization in the coming years. In addition to the anticipated increase in severity of adverse health and environmental consequences, such a trend will place a substantial demand for disposal land space and economic burden for collection and transportation of waste will increase.

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Predicted waste generation in India *(Table: 1)*

Year	Per capita generation (kg per day)	Total waste generation ($x10^3$ Tonnes per year)
2001	0.439	31.63
2011	0.498	47.30
2021	0.569	71.15
2031	0.649	107.01
2036	0.693	131.24
2041	0.741	160.96

Source: Annepu 2012

Apart from the physical factors that are fundamental to the enormous generation of waste across countries, studies have shown that there are certain political, economic and cultural processes that are deeply embedded in a country's system, particularly in low and lower – middle income countries and that have created and sustained the waste problem for ages now, majorly affecting the low income groups of that country. One of these issues is the need to address and enhance understandings of sanitation problems as 2.6 billion people across the globe including half of the population from low and lower – middle income countries, lack access to improved sanitation and the problem remains largely marginalized

because of the social taboo, cultural attitudes and lack of awareness regarding cleaning of human waste, particularly in low and lower – middle income countries (MDG report 2010; Jewitt 2011). Indiscriminate sanitation practices are the root cause of faecal-oral transmission of disease particularly in young children which translates to high child death rates (MDG report 2010). Karpouzoglou and Zimmer (2016) performed case studies in Delhi unveiling water pollution problem associated with wastewater stagnation and overflow. In spite of having 42% of the total sewerage treatment infrastructure of India, less than 50% of city's sewerage is treated properly (CSE 2012), posing major risks to health, well-being and dignity of nearby residents. The mismanagement has been attributed to lack of adequate financing, lack of proper planning and Delhi's exponential population growth. In view of the enormity and the coexistent environmental ramifications, plastic bag waste has been identified as a major solid waste problem in many countries because of the indelible social and environmental footprints that it leaves – blocks drains and gutters, causes death of livestock when they feed on it, spreads malaria as it serves as a breeding ground for mosquitoes and their presence in fields decreases soil productivity.

One such study at Nairobi, Kenya (Njeru 2006), illustrates how the problem remains unattended due to unequal spatial distribution of plastic waste in the city

and the injustices associated with provisions of municipal services to the residents. The construction and demolition (C & D) waste is another threat to environment that needs immediate attention as most of this waste ends up in landfills thus decreasing its life span or to public fill reception facilities, says a study conducted with respect to C & D waste in Hong Kong and Malaysia (Wahi et. al. 2016). Several such examples of poor city municipal structures and "throwing away" of waste may be found in the literature especially in the context of low and lower – middle income countries, which necessitate having targeted intervention strategies and realistic solutions for such issues.

Though efforts like the "Swachh Bharat Abhiyaan", a massive movement that seeks to create a clean India, have been taken up by the Government of India since the year 2014, it has been discerned that for India to become "Swachh Bharat", the country needs to have systems in place that will cater to the 62 million tonnes of solid waste generated per year in the country. Experts have pointed out that the rising potential in the waste management industry will be of the order of $13 billion by the end of 2025, meaning there is critical need for businesses to back up "Swachh Bharat Abhiyaan" today (Dixit 2016).The ongoing traditional practice of extremely hazardous recovery processes, techniques and the unscientific disposal methods of waste, involve high costs and

leave less room for genuine disposal and other uses (Hazra and Goel 2009). All three processes of waste management like collection, transportation and disposal, lack in infrastructure, maintenance and up gradation thus incapacitating the competence of municipal corporations (Rana et. al. 2015). Due to the absence of modernization and automation, these processes are labour intensive and so, 80% of the total municipal corporation budget is accounted for by the salaries of sanitation workers (Gupta et. al. 1998). It is anticipated that if the trend continues, waste management will consume a large portion of budgets in times to come. More so, an analysis by the World Health Organization (WHO) states that the scientific management of waste in India can prevent or control 22 types of diseases, which will in turn lead to savings of huge financial resources currently spent on medical services and the health of young population (Planning Commission Report of the Task Force on Waste to Energy - Volume I, 2014).

The three tiered approach of 3 R's (Reduce, Reuse, Recycle) for managing waste is becoming very popular for spreading awareness among consumers but over a period of time, the advancement in science and technology has caused waste management to evolve into a technologically challenging domain. Technical expertise in this sector has been one major deterrent factor, which needs urgent attention to refurbish survivable conditions for people.

Emergence of Waste-preneur

Anderson (1998) points out that entrepreneurship (ecopreneurship in the present context) is a tool that is most likely to sustain the environment than any other form of imposed change. Most environmental protection activities can be regarded as acts of investment in the long run (Solow et. al. 1991). Although there has been a recent spurt of ecopreneurs in India, aiming towards minimization or consumption of waste in varied forms, there are very few of them who have survived. These feware mainly those who think it is their moral obligation to be working towards the betterment of the environment and society or they see great financial worth associated with the green business that they are into or intend to get involved into.

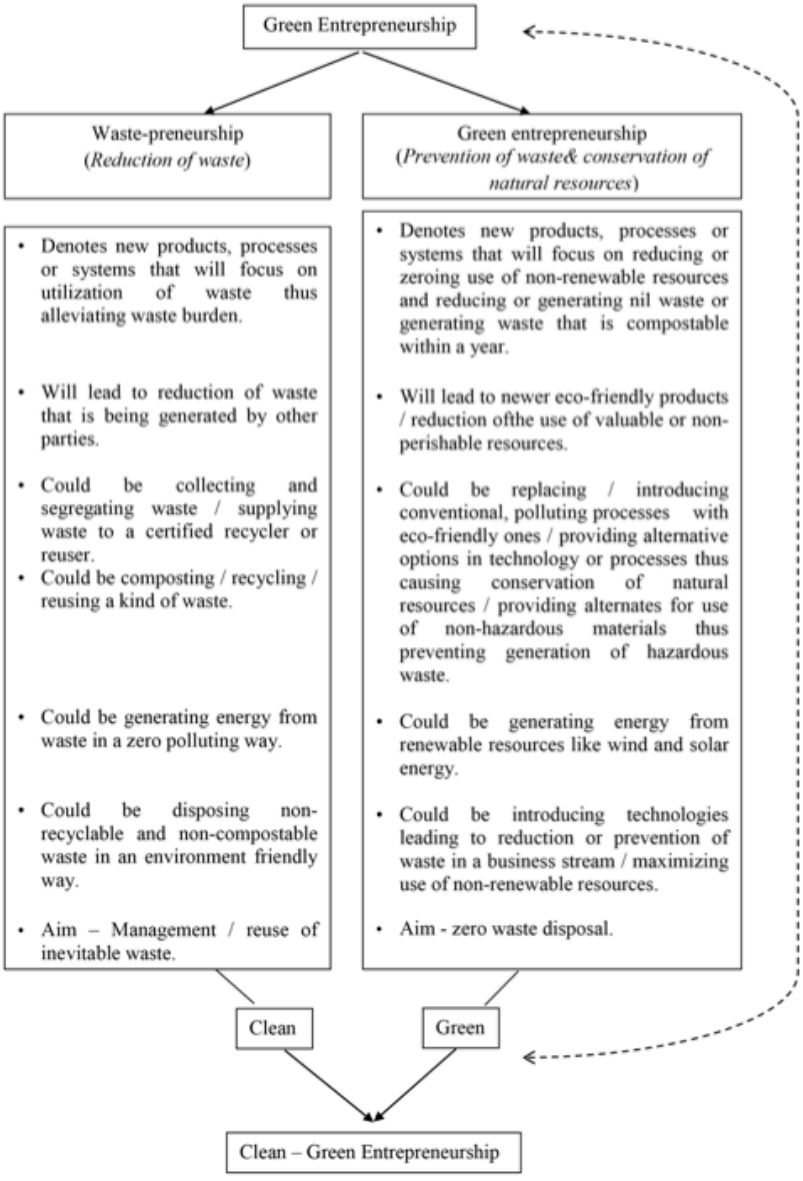
Identifying with the need of transition from a linear economy model to a circular economy model that discourages discarding and advocates little waste going to the grave, it is essential to categorize 'waste management' as a separate ecopreneurial business. Since the birth of ecopreneurship literature, any new technology, process or procedure in the field of treatment of waste has been treated as part of ecopreneurship, which in itself is a broad term engulfing all businesses that either start green or green the existing business (Isaak 2002). Scholars have come up with different typologies of ecopreneurs over the emergence of literature apropos ecopreneurs, but to the best of our knowledge, no

one has shed light on segregating the category of entrepreneurs involved in waste management or treatment. We have termed the category '*waste-preneur*' – these are ecopreneurs who launch innovative and technologically efficient ways of cleaning the environment or who bring in newer and effective ways of managing waste, introducing newer and cost – effective techniques, processes and practices to address collection, landfilling, composting, incineration or recycling of waste as none of these above processes are free from problems (Narayana 2009).

The following figure 3 elucidates the model of bifurcation of green entrepreneurs that we propose and have discussed above –

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Model proposed for Green Entrepreneurship (Figure: 3



We find the segregation of "waste-preneur" as significant because greening the existing business which has been operating conventionally elucidates of bearing the responsibility from the point that the greening of business is initiated, not taking into consideration the emitted waste that has already harmed the environment and is disposed / left untreated or uncared. Also, starting a green business from scratch too implies taking on the responsibility towards care for the environment only from the time that the business commences. Merely 'greening' an ongoing business appears to have had a marginal effect in taking the society towards sustainability (Isaak 2002). Drawing from above, a business person or an entrepreneur who manages waste being generated from various sources, is eligible enough to bear a different class in the typology of ecopreneurs as the newly defined class of a 'waste – preneur' is a social entrepreneur and also a green entrepreneur, who is into the task of eliminating waste that leads to cleaning of the environment and / or to the materialization of a useful eco-friendly recycled product. In the following section, through existing literature we have indicated certain prospective areas where waste-preneurs can have a crucial role and how with their gradual recognition as a separate community, they can benefit from networking and international acknowledgement. While doing so, we have not detailed on each probable aspect due to the limited scope of the paper.

We believe that having waste-preneurs as potential private partners to municipal corporations will serve as a valuable alliance for the waste management fraternity. Public – private partnerships (PPPs) have been in the Indian waste management system since 1985, and because of ample positives that such partnerships brought forth, PPPs progressed from short term contracts to long term alliances. The private agencies are already involved in mechanical jobs like primary collection of waste, street sweeping, secondary storage at a transfer station and transportation of waste to the disposal site (Asnani 2006). Experts say that to accomplish the desired targets in the waste management sector, PPPs have been and are very beneficial (Report of the Task Force on Waste to Energy 2014 ; Rana et. al. 2015) as, such associations improve the quality of service and boost employment (Ahmed and Ali 2004). In some instances, private sector involvement has helped incur almost half the cost per ton of waste of what is incurred by city administration for the same job. Their improved service is due to autonomy in matters related to finance, technology and management and the whole sole accountability (Asnani 2006). Anticipating the demand of modern cost-conscious technology in this sector, we perceive a great significance of waste–preneurs as a private entity, who can be remarkable contributors adding value through their scientific contribution to collection, transportation, disposal, processing or recycling of waste. The value addition can be in the form of a brand

new technology, process or product that channelizes waste towards lesser or zero pollution or a better recycled product. On the flip side, these partnerships are grossly affected by the local institutional and market dynamics, the governance and regulatory structures that conceive them poorly and lack of competition between suppliers and so, PPPs may not guarantee effectiveness and low costs at all times (Schübeler et. al. 1996; British High Commission report 2012).

Waste-preneurs can be elementary agents for providing end-of-pipe solutions in businesses. End-of-the-pipe solutions are those wherein a firm tries to eliminate or reduce negative environmental impacts after they are created, instead of adopting a proactive approach to reduce the sources of waste or pollution (Anbumozhi and Kanda 2005; Walton et. al. 1998).Studies have indicated that end-of-pipe solutions pose a financial burden on businesses because of the added recurring costs these involve, that in turn diminishes the net profit. In low and lower – middle income countries, most new businesses and also the established ones, either do not demonstrate any ethical responsibility towards the environment in terms of proper waste disposal or treatment or are unaware of appropriate environment-friendly, cost effective technologies. The smaller players explore limited technology options due to financial crunches in the initial years of establishing their business – hence a negative impact on the environment. Amuch

better step is to avoid pollution or mitigate it very early in the value chain to bring down the costs to a considerable extent than remediation or cleanup at a later stage – both environmental as well as economic gain (Porter and Linde 1995; Frondel et. al. 2007).However, absolute replacement of end-of-pipe solutions by cleaner production technologies is a far-fetched possibility at present, as it demands rigorous innovations that can replace resource inefficient technologies with technologies that ensure resource productivity to the fullest. Keeping in view the underlying environmental targets, technology options, and related costs, there will be a need for both end-of-pipe solutions and cleaner production technologies (Frondel et. al. 2007) for many more years from now, soliciting a serious need for end-of-pipe solutions and here is where the role of waste-preneur lies.

Waste-preneur, as a separate entity may cater to the unmet demand for clean technology in India and the rest of the low and lower – middle income world. Government of India estimates that the potential to generate power from municipal solid waste will see a more than two-fold increase by 2020, while the potential from industrial waste is likely to increase to more than 50%. (India: Investment and Business Guide 2016). According to the Ministry of New and Renewable Energy (MNRE), India has an energy generation capacity of about 5000 MW from different kinds of waste produced by urban India mainly. This

doesn't include agricultural waste, which has been recognized as a potential source of energy that can replace fossil fuels. Since India's economy is largely agriculture dependent, the country has a huge potential here as the country generates 415.5 million metric tonnes of agricultural biomass waste per year which is equivalent to almost 104 million tonnes of oil (United Nations Environment Programme report 2015). As per the Indian Renewable Energy Development Agency (IREDA) estimates, India is potentially utilizing only two percent of the total waste generated, for energy production (Hickson 2015). We tend to derive here that the figure of untapped 5000 MW of energy has been deciphered, taking into account the conventional operational technology, available either in India or globally. Since the need for newer green and clean technologies translates into the need for promotion of clean–green entrepreneurship, waste–preneur can have a significant role for achieving this.

Recognition to 'waste–preneur' will be helpful in part, in bringing to light the apathy of the system towards the informal sector, the waste-pickers, and in the establishment of policies or laws for the relief of this otherwise exploited poor class. It is being felt across countries and very clearly among upper middle and high income countries that these waste–pickers, being potential partners to municipalities are socially desirable, environmentally sound and economically

viable. They have helped create economic impact of approximately $650 million–1 billion a year in Mumbai by retrieving reusable and recyclable items from waste (Medina 2008).Yet, they have been unable to optimize their work due to lack of social legitimacy or legal rights over waste-processing, which makes them vulnerable to intimidation. The lack of awareness and specific skills, poor working conditions and poor access to basic facilities are issues that have added to their misery and so, they have been unable to make recycling efficient and profitable for themselves (Chaturvedi 2003). So, the paradigm of a waste-preneur, being interpreted as part of waste management programme can be beneficial for the recognition and upgradation of the informal sector, whilst eliminating poverty, even if it initiates on piecemeal basis.

The segregation of ‘green entrepreneurs’ and ‘waste-preneurs’ situates ecopreneurs in separate groups, each group undertaking its interests in close collaboration with ecopreneurs of similar interests and goals. Staying in a close knit environment, they are endowed with the inevitable benefits of networking like expansion and sharing of knowledge, better communication for more opportunities and participation as a community in business and social events aimed at clean green technology and the like. The resultant networking will bring about benefits of shared resources, benefits of interaction and benefits of

belonging to a greater identity meaning reduced costs at various junctures in the business process, utilization of otherwise unattainable opportunities right across the value chain, business benefits through information and know – how exchanges, decreased risk and broader identity that can be utilized in marketing, attracting investment, lobbying for regional development and securing government assistance (Tagar and Cocklin 2010). On the other hand, critics argue that regional proximity and clustering can generate 'devastating competition' rather than productive cooperation (Florida and Kenney 1990).

For the past almost two decades now, research has stated the significance of environmental thinking in the business world as it provides a sharper edge to corporations in their being uniquely competitive in the ever globalizing world market (Isaak 1997). The nomenclature of that of a 'waste-preneur', depicts the entrepreneur's business framework and socially inclined intent. Such a categorization as that of a waste-preneur will earn them better visibility at the international level in terms of exhibition and recognition of their innovative waste management ideas. Since there are countries beset with waste management problems and are on a constant demand to meet such a technological challenge, such recognitions may facilitate technology exchange between countries.

Policy framework

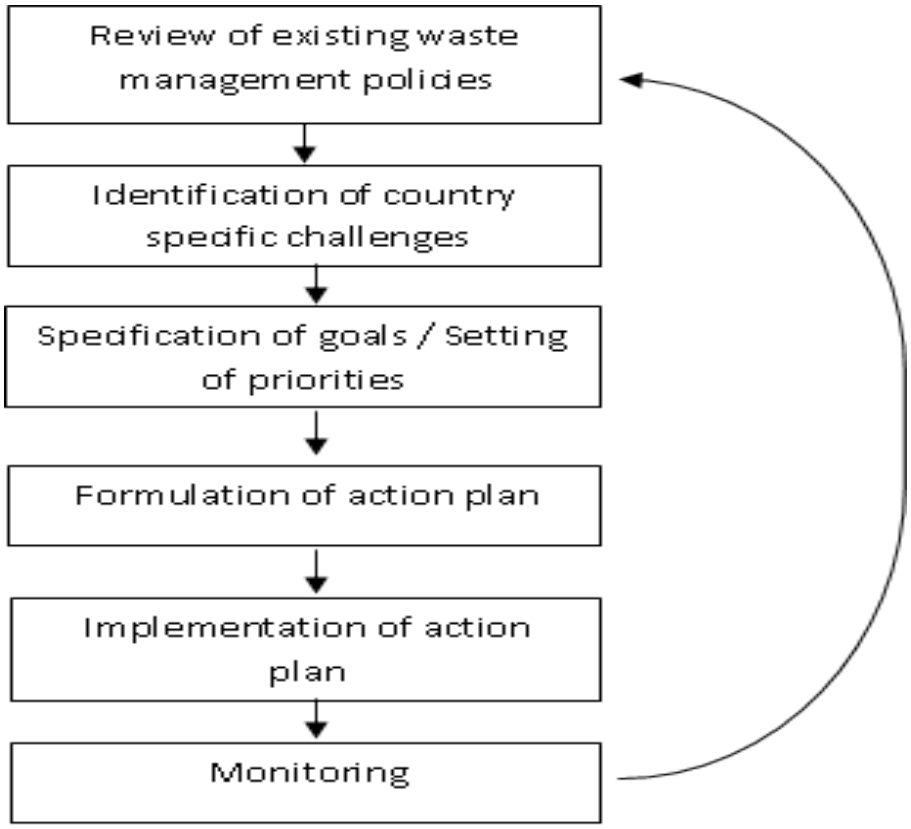
We set out here a structured framework that will help policy makers in formulation, implementation and measurement of waste-preneurship policies, while creating a business environment that assists the emergence, stabilization and growth of waste-preneurs in low and lower–middle income countries and transition economies. The policy framework below is being suggested mainly for the Indian context, though it is applicable to other countries too.

In order for waste-preneurship policy to be actionable, it has to be in co-ordination and coherence with the existing policies of that country in the areas of entrepreneurship, pollution control / waste management and other economic development. Such policies may marginally or largely differ across countries as they are mainly defined by the economic, cultural and social context and the specific development challenges faced by that country and this will lead to diverse waste-preneurship policies.

The crux of any waste-preneurship policy, as suggested by us, can be around the premises of the following flow chart (Figure 4) that elucidates a certain sequence of activities. Though the chart is self-explanatory, it is imperative to mention that it proposes time and again review of prevalent waste management and allied

policies, continuous identification of challenges in a country's context, followed by formulation, implementation and monitoring of the action plan in view of the challenges pertinent to that country. Regular monitoring will be a pointer towards the implementation of existing policies and the upcoming challenges in local context. Policies can then be altered from time to time as deemed fit.

Flow chart for implementation of Waste-preneurship policy (Figure: 4)



Review of existing waste management policies

The waste management is governed by Ministry of Environment, Forest and Climate Change (MoEF) who work in co-ordination with Central Pollution Control Board (CPCB) and State Pollution Control Board (SPCBs) of the various states in India. The city municipal corporations primarily handle solid waste management. The existing waste management rules in India are (Waste

Management Rules 2016) –

- Plastic Waste Management Rules 2016
- e-waste (Management) Rules, 2016
- Bio-Medical Waste Management Rules,2016
- Construction and Demolition Waste Management Rules, 2016
- Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016
- Solid Waste Management Rules, 2016

  The National Environment Policy, 2006 emphasizes on disposal, recycling and treating of waste.

Although financing, infrastructure, suitable planning and data and leadership have been identified as main barriers for MSW management (Sharholy et. al. 2008),

the issues remain tentatively the same with the mismanagement of all other kinds of waste. The e-waste policy initiative is still rudimentary in India, while in countries like Africa, it is yet to evolve (Garlapati 2016). For management of the plastic waste, some new technologies are on the way – pyrolys is technology wherein the plastic waste is converted to high calorific value fuel (Wong et. al 2015) and a technology that converts waste plastic into useful building materials like building bricks and floor interlocks with high compressive strength (Shiri et. al. 2015). Some others are in the market and some of them have been adopted in India too, but these are yet to be honed further for better results. More and more new technologies for plastic waste management are in demand as maximum plastic waste is still going to landfills. The Bio-medical waste (BMW) rules are in place but the indiscriminate disposal continues due to lack of implementation (Mathur et. al 2017). Though there are technologies forpre-treatment or safe sterilization of BMW before sending it to landfills (Gupta et. al. 2018), novel and user-friendly better ones are needed. Effective enforcement of rules is necessary for waste minimization, the most effective way of controlling waste in the construction and demolition (C and D) sector though quantification and techniques like Building Information Modelling (BIM) are picking up for C and D waste reduction (Arif et. al. 2012). Through the hazardous waste rules, the MoEF in India has laid out various treatment and disposal options for different

hazardous wastes that include physical / chemical treatment, landfill, biological treatment, incineration, recycle and recovery and solidification etc., but the most often used option for disposal of such wastes is secured landfill (Prajapati et. al. 2017). These rules majorly, provide directives to the user as to what not to do with the waste or where to gravitate the waste generated, whether to a landfill or to recyclers / processers, who are very few in numbers with limited technology options to treat or reuse waste. The system needs targeted intervention technologies that will provide sustainable environment friendly solutions.

Identification of country specific challenges –

In the Indian context, some of the major challenges for waste-preneurship are –

- Gaps in education.
- Lack of awareness regarding waste segregation / reduce / recycle / reuse.
- Negative cultural biases towards waste business.
- Lack of data on classification and quantification of waste generated.
- Complicated government regulations that discourage start – ups.
- Poor access to finance.

The last two challenges are applicable to the entire entrepreneurship domain, so we will discuss it very briefly for the waste-preneurship policy framework, during further course of our discussion.

Specification of goals / Setting of priorities –

To address the challenges stated above, we have specified the following goals –

- Improve data collection procedures pertaining to different kinds of waste and expand data base on a regular basis.
- Link big manufacturing companies with waste-preneurs.
- Encourage venture capitalists who are interested in generating social and environmental value beyond financial returns. They can be role models to other investors with profit-centric mindset.
- Properly organize waste-pickers / scavengers.
- Educate the public for waste segregation at source.
- Visibility and networking for waste-preneurs
- Reduce the cost and hassle of business registration in the waste sector.

Formulation of action plan-

The following action plan implementable at the State level, is suggested to meet the above goals and to allay the challenges for effective implementation of waste-preneurship.

As we look towards instituting waste-preneurship in India, one of the crucial requirements that come to mind is adequate waste statistics. One may find very meager, occasional waste data on pollution control board websites or with any other private / international agency databank but there is no organized and regular update which can adequately equip the searcher with the different categories of waste, and periodic quantification of their generation, collection, disposal or recycling. This information on components of waste is significant for the waste-preneur/s who are interested in using one or more of those components as their process ingredient/s.

In the beginning, waste-preneurs can be associated with the big manufacturing companies depending on their area of expertise to handle a particular category of waste. Tax rebates can be granted for a win-win scenario to both the parties for an initial specific time period. The highly likely cost, innovation and marketing benefits of waste processing, once becomes evident in the balance books, will

become a motivating factor for both to continue with the practice. One other important advantage of this association would be that the established manufacturing companies can be business role models for waste-preneurs\ start-ups sharing and mentoring from their own experiences in overcoming practical difficulties during setting up a business.

Venture capitalists (VCs)too, can be a dynamic entity in encouraging waste-preneurs, as apart from financial support, they also provide business advice and network support to the start-ups (Bocken 2015). In the present day, VCs have short term investment mindsets developed in accordance with the quick win business formats (such as “apps”) of today. While most VC investments are risky, investments in socially and environmentally responsible businesses are riskier, are more capital intensive and have greater environmental and social benefits (Cumming et. al. 2016). Media coverage of the waste-preneur technology will help promote image, reputation and legitimacy, thus attracting attention of VCs. Research points to the fact that for VCs to be pro-active towards ecopreneurship, regulatory push is a crucial influencing factor (Randjelovic et. al. 2003).The government’s effectiveness towards waste minimization and recycling will go a long way in increasing the VCs’ interests towards investments in waste-preneurial business models.

The contribution of unskilled and informal sector, better known as “waste-pickers”, “waste collectors” and “recyclers” can’t be ignored if we are to activate waste-preneurship. This socially marginalized and politically disenfranchised community makes a living by selling recyclables found in trash (Marello and Helwege 2014), contributing immensely to public health and urban economies. Going by the tradition of this community sorting and selling trash, we can safely derive that they will help divert precise raw material to waste-preneurs in a lesser time. Legalizing their status, giving them the right tools and uniform, their integration into the door-to-door collection regime for direct access to scrap and steps like these will give them social and economic security, thus placing them as core players in waste-preneurship domain.

Public attitudes to waste are a major barrier to improving waste management (Kumar et. al. 2017). Public education and awareness has a critical role to play tomake waste-preneurship happen, as it can lead to increase in number of stakeholders who can strategize their direct or indirect influences on the system and thus support waste-preneurship. Limited environmental awareness combined with low motivation has inhibited innovation on part of entrepreneurs and adoption of new technologies by the deciding authorities that if provided amply, could transform waste management scenario in the low and lower – middle

income countries (Kumar et. al. 2017). Increasing awareness amongst the public for segregation of waste will lead to more comprehensive and efficient waste collection on the part of collectors and better recovery of recyclables by the interested parties, saving time, energy and money of the waste-preneurs for their initial procurement.

Information sharing platforms like conferences and biannual international fairs with focus on new technologies in waste management will help waste-preneurs increase their visibility in general and their interaction with other waste-preneurs. Alliances with other waste-preneurs to form export consortia will help them effectively penetrate and increase their share of foreign markets at reduced cost and risk. The members can improve profitability, productivity and knowledge through various joint management training programmes and joint ISO 9000 certification programmes (UNIDO Export Consortia flyer 2005)

Following the World Bank's exercise of ranking countries according to the Ease of Doing Business (EoDB) and the January 2016 launch of Startup India initiative, a project to boost entrepreneurial spirit, there have been steps taken in the direction of making it easier for entrepreneurs to start business in India. Among the various steps taken "Single window clearance" is one of the notable

features (Article on Indianonlineseller.com 2016). As part of their startup policies, many states in India have single window clearance systems in place with the intention of fastening processes for the entrepreneurs inseeking permission to acquire land, registering property, getting a construction clearance, etc. (IBEF article 2017). This will help eliminate bureaucratic hurdles and corruption also bringing a lot more benefits for both the government and the entrepreneur. A similar single window system for waste-preneurs or an online portal that apart from facilitating the usual entrepreneurial establishment process, has the provision of linking both service seekers and service providers (waste-preneurs), will be very helpful. The service seekers maybe municipal corporations (who can help associate waste-preneurs with waste-pickers in addition to potentially obtaining other waste services), big manufacturing houses, farmers and others in agri – business[as agriculture is the source of livelihood for 58% Indians (Article at IBEF 2018)], resident welfare associations and any other sector looking for waste solutions.

Implementation and monitoring

A working group or an agency should be assigned the responsibility of implementing and monitoring different phases of the waste policy.

Formation of a multidisciplinary technical group for integration of waste-preneurs in the system will be the foremost requirement. The technical committee comprising of technocrats and government officials will be responsible for –

- Evaluating and assessing the environmental benefits and risks involved with the suggested waste-preneurial technology and selecting waste-preneurs for funding under state / central government schemes.
- Assuring compliance with existing policies.
- Educating waste-preneurs about tax benefits.
- Arranging third party auditions.
- Having in place a feedback system for stakeholders.

With gradual evolution of the system, the technical committee can undergo annual reconstitution to include waste-preneurs that have been selected for funding in the preceding year. This is to expand the scope of technical expertise of the committee to better understand the viability of the new technologies being proposed from time to time. Such recognition and authorization may attract more waste-preneurs in business. The government support programs have to be indicative enough so as to declare in advance as to when or under what circumstances they will cease start-up help (Baumol 1995) from the waste-

preneurs. It is important that the technical committee should not be affected by political leadership so as to ensure sustainability of the action plan. The implementation of policy has to be supervised by the State Pollution Control Board (SPCB). The SPCB can have a six monthly plan to report to the Central Pollution Control Board. Periodic waste monitoring / audits are indicative of the success and progress of the plan and also for identification of areas that require review. However robust the action plan is, its implementation and subsequent monitoring is very crucial.

Conclusion

The intent of caring for the environment and of preventing harm occurring to the environment through our interactions with it, has to go beyond ideas and extend to actual practice that influences how communities, businesses and individuals conduct themselves. Ecopreneurship is about conducting business with such an aim, employing new technologies or processes that can either free the environment of the adverse impact it has had or leave no adverse impact on the environment. A trend of significant increase in waste generation ensuing hostile impact on the environment, has been recorded worldwide. The unguided management of waste mainly in low and lower – middle income countries, due to which the generated waste is often greater than the amount of waste being

handled each year, calls for newer ways and techniques that can expedite and substantially contribute to waste management because the conventional techniques are falling short of the desired results.

Our proposition in this paper is such that if it is undertaken, it may lead to faster and safe reduction in waste as compared to the present scenario with current waste operational policies and practices that may not necessarily be non-perilousor effective. In this paper, we have proposed to segregate ecopreneurs into two categories - *waste-preneur* and *green entrepreneur* based on whether they are instrumental in *cleaning* or *greening* the environment. Waste-preneurship aims at *cleaning* by reduction of waste. It denotes new products, processes or systems that will focus on utilization of waste thus alleviating waste burden. Green entrepreneurship aims at *greening* by prevention of waste and conservation of natural resources. It denotes new products, processes or systems that will focus on reducing or zeroing use of non-renewable resources and reducing or generating nil waste or generating waste that is compostable within a year. Such a differeniation of green and clean entrepreneurs will lead to a better focused approach by the government in terms of facilitating customized supportive ecosystem thus encouraging more aspirers, new entrepreneurs and existing business folks to transform their ideologies towards environmental sustainability

over a period of time. The focused approach towards having committed waste-preneurs will remarkably contribute in saving valuable funds, will help in job creation and will also salvage valuable land fill space. We also feel that it would be profitable for any government to support waste-preneurs because the government might entail more expenses on managing waste itself than kick start may be a few start-ups in waste handling.

Our study contributes to ecopreneurship literature by introducing a new category of ecopreneur. Through this paper, we contend that while ecopreneurship is a vital ingredient for the economic, environmental and social growth of a country, waste-preneurship as a subset, has the potential to contribute to specific environmental as well as social improvement objective such as waste management. The paper details the different characteristics of both the waste-preneur as well as green entrepreneur and specifies the importance of dealing with *cleaning* and *greening* of the environment within two different domains. Our proposal rests on waste generation statistics across a few low and lower – middle income countries that are loud enough to demand an action in this sector. We have also suggested a probable policy framework for India, which also bears applicability to other countries that choose to adopt waste-preneurship. Thereafter, a workable action plan has also been proposed by us.

There may be many aspects related to this segregation, which we may not have speculated in the present paper and which may surface with the advancement in the said field. The suggested policy framework can also be spruced up with advancement in waste-preneurship studies. Further research can also focus on types of "waste-preneurs", depending on the extent of their intent to serve social goals, or their choice of task pertaining to waste management.

References

Ahmed, S. A., & Ali, M. (2004). Partnerships for solid waste management in developing countries: linking theories to realities. *Habitat International*, *28*(3), 467-479.

Anbumozhi V, Kanda Y. (2005). Greening the production and supply chains in Asia: is there a role for voluntarily initiatives? *IGES Kansai Research Center Discussion Paper*, *KRC-2005, No. 6E; 2005, Retrieved August 1, 2018 from:* https://pub.iges.or.jp/pub_file/bss-05-005pdf/download.

Anderson, A. R. (1998). Cultivating the Garden of Eden: environmental entrepreneuring. *Journal of Organizational Change Management*, *11*(2), 135-144.

Annepu, R.K. (2012) Sustainable Solid Waste Management in India. Available at http://www.seas.columbia.edu/earth/wtert/sofos/Sustainable%20Solid%20Waste%20Management%20in%20India_Final.pdfaccessed on July 27, 2018.

Arif, M., Bendi, D., Toma-Sabbagh, T., & Sutrisna, M. (2012). Construction waste management in India: an exploratory study. *Construction innovation*, *12*(2), 133-155.

Article - India's challenges in waste management 2017 Available at https://www.downtoearth.org.in/blog/india-s-challenges-in-waste-management-56753 accessed on August 18, 2018.

Article - Indian onlineseller.com article 2016, available at https://indianonlineseller.com/2016/01/governments-startup-india-initiative-to-impact-ecommerce/ accessed on August 13, 2018.

Article - India Brand Equity Foundation article December 2017 https://www.ibef.org/blogs/ease-of-doing-business-in-india-registers-a-huge-improvementaccessed on August 14, 2018.

Article - India Brand Equity Foundation article June 2018 https://www.ibef.org/industry/agriculture-india.aspxaccessed on August 14, 2018.

Asnani, P.U. (2006) Solid Waste Management, India Infrastructure Report http://www.iitk.ac.in/3inetwork/html/reports/IIR2006/Solid_Waste.pdf Accessed on August 20, 2018.
Baumol, W. J. (1995). Environmental industries with substantial start-up costs as contributors to trade competitiveness. *Annual review of energy and the environment*, *20*(1), 71-81.
Bennett, S. J. (1991). *Ecopreneuring*. Wiley.
Berle, G. (1993). The green entrepreneur: Business opportunities that can save the Earth make you money.
Bocken, N. M. P. (2015). Sustainable venture capital–catalyst for sustainable start-up success?. *Journal of Cleaner Production*, *108*, 647-658.
Boulding, K. E. (1966). The economics of the coming spaceship earth. *Environmental Quality Issues in a Growing Economy*.
Chaturvedi, B. (2003). Waste-handlers and recycling in urban India: Policy, perception and the law. *Social Change*, *33*(2-3), 41-50.
Chhapial, Hemali (2013) Waste is gold: Proper waste management makes perfect business sense Times of India, 25 September, 2013 Available at .http://timesofindia.indiatimes.com/home/environment/the-good-earth/Waste-is-gold-Proper-waste-management-makes-perfect-business sense/articleshow/23059824.cms (accessed on December 10, 2017)
Cohen, B., & Winn, M. I. (2007). Market imperfections, opportunity and sustainable entrepreneurship. *Journal of Business Venturing*, *22*(1), 29-49.
CSE. (2012). Excreta matters: How urban India is soaking up water, polluting rivers and drowning in its own excreta (Vol 2). New Delhi
Cumming, D., Henriques, I., & Sadorsky, P. (2016). 'Cleantech'venture capital around the world. *International Review of Financial Analysis*, *44*, 86-97.
de Bruin, A., & Lewis, K. (2005). Green entrepreneurship in New Zealand: A micro-enterprise focus. *Making ecopreneurs: Developing sustainable entrepreneurship*, 61-71.

Dixit, K. (2016) Tale of an untapped $13 billion waste management industry *The Economic Times*, 11 April, 2016 Available at http://economictimes.indiatimes.com/news/politics-and-nation/tale-of-an-untapped-13-billion-waste-management-industry/articleshow/51776251.cms (accessed on August 21, 2018).
Ehrlich, P. (1970). The population bomb. *New York Times*, 47.
Florida, R., & Kenney, M. (1990). Silicon Valley and Route 128 won't save us. *California Management Review*, *33*(1), 68.
Friedman, T. L. (2009). *Hot, flat, and crowded: Why we need a green revolution--and how it can renew America*. Macmillan.
Frondel, M., Horbach, J., & Rennings, K. (2007). End-of-pipe or cleaner production? An empirical comparison of environmental innovation decisions across OECD countries. *Business Strategy and the Environment*, *16*(8), 571-584.
Garlapati, V. K. (2016). E-waste in India and developed countries: Management, recycling, business and biotechnological initiatives. *Renewable and Sustainable Energy Reviews*, *54*, 874-881.
Goyal, S., Esposito, M., & Kapoor, A. (2016). Circular Economy Business Models in Developing Economies: Lessons from India on Reduce, Recycle, and Reuse Paradigms. *Thunderbird International Business Review*.
Gupta, S., Mohan, K., Prasad, R., Gupta, S., & Kansal, A. (1998). Solid waste management in India: options and opportunities. *Resources, Conservation and Recycling*, *24*(2), 137-154.
Gupta, A., Pandey, A., Thakuria, B., & Mittal, D. K. (2018). Understanding the new bio medical waste management rule 2016 is the first step towards implementation. *International Journal of Scientific Research*, *7*(4).
Hazra, T., & Goel, S. (2009). Solid waste management in Kolkata, India: Practices and challenges. *Waste management*, *29*(1), 470-478.
Hickson, K. (2015) Nothing goes to waste: Invest in managing this resource Foreign Investors on India 5 March, 2015 Available at http://www.fii-

news.com/nothing-goes-to-waste-dont-rubbish-solar-and-wind-energy/ accessed on August 20, 2018.
Hindu Business Line (2013) Attero, World Bank arm tie up for e-waste recycling. Available at https://www.thehindubusinessline.com/info-tech/Attero-World-Bank-arm-tie-up-for-e-waste-recycling/article20600076.ece accessed on August 20, 2018.
India : Investment and Business Guide (2016) *Page no. 175* Available at https://books.google.co.in/books?id=4ty0CwAAQBAJ&pg=PA175&lpg=PA175&dq=power+from+municipal+solid+waste+will+more+than+double+by+2020&source=bl&ots=OaWMoy6Irg&sig=jPOxc5gcxb_ihOnvJ_vafxyzzwE&hl=en&sa=X&ved=0ahUKEwiUnJDRn_vSAhWIqo8KHS95D5oQ6AEIGzAA#v=onepage&q=power%20from%20municipal%20solid%20waste%20will%20more%20than%20double%20by%202020&f=false accessed on August 20, 2018.
Isaak, R. (1997). Globalisation and green entrepreneurship. *Greener Management International*, 80-90.
Isaak, R. (2002). The making of the ecopreneur. *Greener Management International*, *2002*(38), 81-91.
Jewitt, S. (2011). Geographies of shit: Spatial and temporal variations in attitudes towards human waste. *Progress in Human Geography*, *35*(5), 608-626.
Kapoor, A. (2014) Pioneers of Clean India : entrepreneurs 'recycling waste' to make lifestyle products The Economic Times, 23 November, 2014 Available at http://articles.economictimes.indiatimes.com/2014-11-23/news/56385072_1_lifestyle-products-tyre-garment/2 Accessed on August 20, 2018.
Karpouzoglou, T., & Zimmer, A. (2016). Ways of knowing the wastewaterscape: Urban political ecology and the politics of wastewater in Delhi, India. *Habitat International*, *54*, 150-160.
Kumar, S., Bhattacharyya, J. K., Vaidya, A. N., Chakrabarti, T., Devotta, S., & Akolkar, A. B. (2009). Assessment of the status of municipal solid waste

management in metro cities, state capitals, class I cities, and class II towns in India: An insight. *Waste Management*, *29*(2), 883-895.
Kumar S, Smith SR, Fowler G, Velis C, Kumar SJ, Arya S,R, KumarR, Cheeseman C. 2017 Challenges and opportunities associated with waste management in India. R.Soc.opensci.4: 160764. http://dx.doi.org/10.1098/rsos.160764.
Marello, M., & Helwege, A. (2014). Solid Waste Management and Social Inclusion of Waste Pickers: Opportunities and Challenges. GEGI Working Paper 7, Boston University.
Mathur, P., Patan, S., & Shobhawat, A. S. (2017). Need of biomedical waste management system in hospitals-An emerging issue-a review. *Current World Environment*, *7*(1).
MDG report 2010 Available at http://www.un.org/millenniumgoals/pdf/MDG%20Report%202010%20En%20r15%20-low%20res%2020100615%20-.pdf accessed on July 24, 2018.
Medina, M. (2008). The informal recycling sector in developing countries: Organizing waste pickers to enhance their impact – World Bank group article.
Melay, I., & Kraus, S. (2012). Green entrepreneurship: Definitions of related concepts. *Int. J. Strateg. Manag*, *12*, 1-12.
Menon, A., & Menon, A. (1997). Enviropreneurial marketing strategy: the emergence of corporate environmentalism as market strategy. *The Journal of Marketing*, 51-67.
Narayana, T. (2009). Municipal solid waste management in India: From waste disposal to recovery of resources?. *Waste management*, *29*(3), 1163-1166.
Njeru, J. (2006). The urban political ecology of plastic bag waste problem in Nairobi. Kenya.Geoforum, 37,1046–1058.
Pastakia, A. (2010). Ecopreneurship in India: A. *Making Ecopreneurs: Developing Sustainable Entrepreneurship*, 125.

Porter, M., & Van der Linde, C. (1995). Green and competitive: ending the stalemate. *The Dynamics of the eco-efficient economy: environmental regulation and competitive advantage*, *33*.
Prajapati, R. P., Sharma, A., & Tiwari, D. R. (2017). Industrial hazardous waste management studies of nitrogenous chemical fertilizer factory in Vijapur, District Guna (MP) India. *Current World Environment*, *5*(1).
Rana, R., Ganguly, R., & Gupta, A. K. An Assessment of Solid Waste Management System in Chandigarh City, India 2015. Available at http://www.ejge.com/2015/Ppr2015.0229me.pdf.
Randjelovic, J., O'Rourke, A. R., & Orsato, R. J. (2003). The emergence of green venture capital. *Business strategy and the environment*, *12*(4), 240-253.
Report of the United Nations Conference on the Human Environment, 1972 Available at http://www.un-documents.net/aconf48-14r1.pdf (Accessed on August 18, 2018).
Report of the World Commission on Environment and Development: Our common future, 1987 Available at http://www.un-documents.net/our-common-future.pdf (Accessed on August 18, 2018).
Report (Human Development) of the United Nations Development Programme, 1999 Available at http://hdr.undp.org/sites/default/files/reports/260/hdr_1999_en_nostats.pdf (Accessed on August 18, 2018).
Report - Ministry of Environment and Forest (MoEF), State of the Environment 2001. Available at http://www.moef.nic.in/soer/2001/ind_waste.pdf accessed on March 24, 2017 .
Report of the World Resources Institute (annual), 2004 *Ideas into Action* Available at http://www.wri.org/sites/default/files/wri_2004_annual_report.pdf (Accessed on August 18, 2018).
Report - Central Pollution Control Board, India 2009 - National Inventory of Hazardous Wastes Generating Industries & Hazardous Waste Management in India

http://www.cpcb.nic.in/upload/NewItems/NewItem_145_hw_inventory_final_report_2009.pdf accessed on August 17, 2018.
Report (2012) British High Commission - prepared by Athena Infonomics India Pvt. Ltd. – Public Private Partnerships (PPPs) in Municipal Solid Waste Management in India – Potential and strategies https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/186990/ReportPPPMunicipalSolidWasteManagement270812.pdf accessed on August 20, 2018.
Report - Central Pollution Control Board, India 2014 'Planning Commission Report of the Task Force on Waste to Energy - Volume I' Available at http://planningcommission.nic.in/reports/genrep/rep_wte1205.pdf accessed on August 17, 2018.
Report - United Nations Environment Programme (2015) The Global Waste Management Outlookhttp://eprints.whiterose.ac.uk/99773/1/GWMO_report.pdf accessed on August 18, 2018.
Report - United Nations Environment Programme (2015) https://www.unenvironment.org/annualreport/2015/en/index.html accessed on August 20, 2018.
Schaltgger, S. (2005). A framework and typology of ecopreneurship: leading bioneers and environmental managers to ecopreneurship. *M. Schaper, Making entrepreneurs: Developing sustainable entrepreneurship, Hampshire, GU11 3HR: Ashgate Publishing Limited*.
Schaper, M. (2002). The essence of ecopreneurship. *Greener Management International*, 26 - 30.
Schmidheiny, S. (1992). *Changing course: A global business perspective on development and the environment* (Vol. 1). MIT press.
Schübeler, P., Christen, J., & Wehrle, K. (1996). *Conceptual framework for municipal solid waste management in low-income countries* (Vol. 9). SKAT (Swiss Center for Development Cooperation).

Sharholy, M., Ahmad, K., Mahmood, G., & Trivedi, R. C. (2008). Municipal solid waste management in Indian cities–A review. *Waste management*, *28*(2), 459-467.
Shiri, N. D., Kajava, P. V., Ranjan, H. V., Pais, N. L., & Naik, V. M. (2015). Processing of Waste Plastics into Building Materials Using a Plastic Extruder and Compression Testing of Plastic Bricks. *Journal of Mechanical Engineering and Automation*, *5*(3B), 39-42.
Solow, R. M. (1991). Sustainability: an economist's perspective.
Tagar, E., & Cocklin, C. (2010). Offsetting the Disadvantages. *Making Ecopreneurs: Developing Sustainable Entrepreneurship*, 185.
United Nations Industrial Development Organization (UNIDO) Export Consortia flyer 2005, Available at https://www.unido.org/sites/default/files/2008-5/Export_conosrtia_flyer_en_0.pdf accessed on August 13, 2018.
Wahi, N., Corina Joseph, Rudy Tawie, Roseline Ikau, Procedia - Social and Behavioral Sciences 224 (2016) 276 – 283, 6th International Research Symposium in Service Management, Malaysia --- Critical Review on Construction Waste Control Practices: Legislative and Waste Management Perspective.
Walton SV, Handfield RB, Melnyk SA. The green supply chain: integrating suppliersinto environmental management process. International Journal of Purchasing and Materials Management 1998;34(2):2–11.
WasteManagement Rules 2016 Available at http://envfor.nic.in/sites/default/files/Waste%20Management%20Rules,%202016.pdf accessed on August 20, 2018.
Wong, S. L., Ngadi, N., Abdullah, T. A. T., & Inuwa, I. M. (2015). Current state and future prospects of plastic waste as source of fuel: A review. *Renewable and Sustainable Energy Reviews*, *50*, 1167-1180.