

**Effect of environmental factors on development of enterprise:
A study of IT entrepreneurship in selected areas of Maharashtra**

1. Mrs. Kirti Wankhede,
2. Professor Dr. Pradip Manjrekar,

Abstract

Entrepreneurship has great economic value for the nation. This paper deals with entrepreneurship on conceptual basis and deals with its numerous definitions and the factors which lead to entrepreneurship in Information Technology (IT) sector. It discusses the environmental influences such as, government and non-government policies and initiatives which will help for new enterprise formation, as well as on further enterprise development. The paper has practical implications for Governments, policy formulating and regulatory bodies to structure their frameworks and guidelines in an optimum manner which may help in creating an encouraging environment for the development of entrepreneurship and the emergence of IT entrepreneurs. Improved climate for technological entrepreneurship will have direct positive effect on economical development, new job and wealth creation.

Keywords: IT Sector, Entrepreneurship, Environmental factors

¹Asst. Professor, YMT College of Management, Kharghar, Navi Mumbai, India. Email: kvw142@gmail.com

²Dean, Department of Business Management, Padmashree Dr. D Y Patil University, CBD Belapur, Navi Mumbai, India. Email: drpradipm1@gmail.com

1. Introduction

It is widely accepted that technology is an important ingredient in any nation's ability to prosper and compete within the global economy. The modern world has witnessed the dramatic growth and phenomenal emergence of the information technology (IT) industry over the past two decades. Young millionaires from the IT industry dictating international stock markets captured the imagination of technological entrepreneurs worldwide. The instant success of these idols in the traditional business world inspired many technically trained participants in the economies of most developed and emerging regions to become IT entrepreneurs. The rise of this industry was surpassed by its collapse during the first few months of the new millennium. The effect of the poor performing IT sector was one of the major influences in the steep and continuous decline of stock markets during the same period. One explanation for this 'rise and fall' phenomenon is that the IT entrepreneurs were technically competent, well-trained in their disciplines and that they spotted and seized the opportunities which presented themselves. Whether they lacked sufficient training, work experience and exposure to entrepreneurship and to some extent the role of government and non-government policies and initiatives?

This paper attempts to answer this question by presenting a brief picture of some of the commended definitions and theories of entrepreneurship. This paper also highlights the effect of the government and non-government policies and initiatives with the help of the survey methodology.

2. Literature Survey

2.1 The entrepreneurship concept

Up to the early 1980's the focus of researchers was on the entrepreneur as the dominant role player in the process of new venture creation. After that the focus has shifted away from the person towards the entrepreneurial process. A similar shift in focus was evident in the strategic/business policy field in the 70's. In this case the strategic process was emphasized rather than the roles and functions of the general managers (Bull et al, 1995).

Early authors such as David C. McClelland and his associates (1967) contributed considerably toward the understanding of the characteristics of entrepreneurs. McClelland's model of the three basic needs in individuals that influence the achievement of economic ends is well documented. These three needs are defined as:

1. The need for achievement or n Ach,
2. The need for affiliation or n Affil and
3. The need for power or n Pow.

Roberts (1991) offered a four-factor model of the development of the (technical) entrepreneur. Later authors such as Bolton & Thompson (2000) presented the entrepreneur within the dimensions of talent, temperament and technique. These two models focus on the entrepreneur.

Bygrave & Hofer propagated the paradigm shift towards the process, as quoted by Bull et al (1995) when they proposed the following working definitions:

- The entrepreneurial process involves all the functions, activities and actions associated with perceiving opportunities and the creation of organizations to pursue them.
- The entrepreneurial event involves the creation of a new organization to pursue an opportunity.

Authors such as Bull et al (1995), as well as Roberts (1991), Bolton et al (2000), Timmons (1994) and Gnyawali & Fogel (1994) all disseminated the entrepreneurial process, plus the environmental influences on the entrepreneur and the process.

2.2 Research on environmental factors and its impact on entrepreneur, entrepreneurship

Earlier researchers, who mainly focused on the person and the behavior of the entrepreneur, neglected the environment in which entrepreneurship is conducted. It is only late in the 1980's when researchers like Drucker (2001) and Roberts (1991) acknowledged the importance of the environmental influences on the development of the entrepreneur, as well as on the entrepreneurial process. Most entrepreneurship models recognize the importance and role that different environments play in entrepreneurship and the entrepreneurial process. Such models, include:

- The model of Birley et al (1992) for entrepreneurship in transition;
- The integrative model for entrepreneurship education and training of Gnyawali et al (1994);
- The entrepreneur development model of Roberts (1991);
- The model for economic development of the Technology and Development Institute of Hawaii as presented by Tran (1975);
- The model for entrepreneurship education of Klandt & Muller-Boling (1993);
- The entrepreneurship-training model of the University of Tulsa in the USA (Klandt et al 1993);
- The national (India) entrepreneurship process model by Paul D. Reynolds, Michael Hay, William D. Bygrave, Erkkö Autio and Kauffman Centre for Entrepreneurial Leadership at the Ewing Marion Kauffman Foundation (GEM India 2002 report).

The acknowledgement of the importance of entrepreneurial environments and the growing body of knowledge on the subject is evidence of the importance of this element. Despite the recent growth, gaps are still evident in the literature. Gnyawali et al (1994) formulated a model to resolve the problems in the literature spectrum, which addressed four major areas:

- A conceptual framework to integrate the available literature on entrepreneurial environments;
- Establish links between the needs of entrepreneurs and how environments can fulfill these needs;
- Propose guidelines to conduct empirical research on entrepreneurial environments; and
- Address the needs of policy makers as an important audience for research on entrepreneurship.

According to Gnyawali et al (1994), an entrepreneurial environment is “a combination of factors that play a role in the development of entrepreneurship”. It refers firstly to the overall economic, socio-cultural, and political factors that influence people's willingness and ability to undertake entrepreneurial activities. Secondly, it refers to the availability of assistance and support services that facilitate the start-up process. Their work also distinguishes between three broad streams in the available literature on entrepreneurial environments:

- General environmental conditions for entrepreneurship;
- Descriptive studies of the environmental conditions of a particular country or region; and
- The role of public policy in shaping the entrepreneurial environments.

Research results indicate a strong potency of regional factors in influencing entrepreneurial behavior in communities.

2.2.1 Government initiatives

The role of government on the development of entrepreneurship in developing countries is stated by Tran (1975) as follows: “Scarcity of entrepreneurship has important political significance as well, for, unless capable entrepreneurs come forward in sufficient numbers, the government must necessarily play an increasingly active role in the field of economic development.

As agents of economic development, entrepreneurs perform the coordinating function of bringing into existence new enterprises. They create jobs for a growing population, improve terms of trade for local producers of raw materials, turn the country toward industrialization, and free the national economy from dependence by promoting exports”.

Tran (1975) proposes the following strategy for the development of entrepreneurship in developing countries:

- The creation of a substantial market-orientated, profit-orientated sector of the economy;
- The development of a class of indigenous and economically rational traders and craftsmen and the provision of opportunities for the more capable of them to acquire business experience and capital; and
- The provision of opportunities and economic incentives for the indigenous businessmen to move into larger-scale organizations and modern industry.

2.2.2 Private sector initiatives

The private sector is, together with the public sector, a major role player in the activities of any modern economy. Where the public sector is the policy instrument whose regulatory influence is primarily of an external nature, the private sector has to influence the economy from within the playing field. Being an active participant in the competitive markets, both locally and internationally, the private sector is on many occasions at a disadvantage to exert its influence effectively. Own company benefits and profit driven considerations are determining factors when private sector initiatives alone are the driving forces behind for example, entrepreneurial development. The very nature of the benefits that are to accrue to companies from such initiatives carries the label of self-beneficiation, which largely overshadows any national or group benefits that might result from the initiatives. The embedded difference between the driving mechanisms of these two sectors and the interdependence between them, make co-operation between them of critical importance. Acceptable limits of government regulation are difficult to determine and too much interference can eventually blunt private initiative and result in an increasing bureaucratization of the private sector.

3. Methodology

The methodology of this study involved a survey of IT entrepreneurs in Mumbai and Navi-Mumbai. A pilot survey conducted on 30 respondents and final refined questionnaire was sent to about 352 respondents. The questionnaire was based on the environmental factors such as Government policies and Non-government initiatives. The Ordinal Variable Scale (Negatively = 1, Not at all = 2 and positively = 3) was used to degree of agreement on the suggestions made on each parameters.

4. Analysis of data and details of findings

Government policies include central government policies, central government initiatives, state government initiatives and local government initiatives. Non-Government factors include Private sector initiative, Non-government organizational initiative, Tax incentives, Healthy climate for business opportunities, Development initiatives of Small, Medium & Micro Enterprises (SMME) and IT sector policies. Information collected for this in question and response to these questions is classified and presented in table which is shown in annexure I. To study the influence of all government policies, non-government factors and success of enterprise, the responses is classified and presented using bivariate frequency table which is shown in annexure I and Chi-square test is applied which gives the following results :

- It has been found that there is association between influence of Central Government policies and success of enterprise.
- It has been found that there is no association between influence of Central Government initiatives and success of enterprise.
- It has been found that there is association between influence of state initiatives and success of enterprise.
- It has been found that there is association between influence of local initiatives and success of enterprise.
- It has been found that there is association between influences of Private Sector initiatives and success of enterprise and remaining result is shown in Annexure I.

As association is found between influence of Central Government policies, state initiatives local initiatives, private Sector initiatives, Non-govt. organisation initiatives, healthy climate, development initiatives of SMME, IT sector policies and success of enterprise, the study was set to have ANOVA and to have F-test in order to ascertain the level of significance of variance. The results concluded that:

- There is significant difference between influence of Central Government policies and success of enterprise.
- There is significant difference between influence of state initiatives and success of enterprise.
- There is significant difference between influence of local initiatives and success of enterprise.
- There is significant difference between influences of Private Sector initiatives and success of enterprise.
- There is significant difference between influences of Non-Govt organisation initiatives and success of enterprise.
- There is significant difference between influences of healthy climate and success of enterprise.
- There is significant difference between development initiatives of SMME and success of enterprise.
- There is significant difference IT sector policies and success of enterprise.

5. Conclusion

The study shows majority of respondents rated that their enterprise success during first 3 years was not at all influenced by government factors that are central government policies, central government initiatives, state government initiatives and local government initiatives. Similarly the study also shows majority of respondents rated that their enterprise success during first 3 years was not at all influenced by non government factors that are private sector initiative, non-government organizational initiative, healthy climate for business opportunities, development initiatives of Small, Medium & Micro Enterprises (SMME) and IT sector policies.

6. Recommendation

There is a perceived lack of government assistance (central/state/local) during the start-up and further growth phases of the IT enterprises in terms of insufficient tax incentives, initiatives, development programs and the availability of venture capital. This view is supported by the fact that insufficient government assistance was ranked forth as a cause of lack of technological innovation, first as a cause for technological business failures and the improvement of efforts by the central/state/local government ranked third as a measure to improve information technological entrepreneurship. There is a perceived failure of the efforts to assist new IT enterprise formation. It has been recommended that government and private sector should provide more assistance for formation of new IT enterprise. Government should provide sufficient single source information centers for small business.

7. References

- Bull, I., Thomas, H., Willard, G.** (1995). *Entrepreneurship: Perspectives on Theory Building*. Publishers: Elsevier Science, Oxford, U.K..
- Bolton, W.K., Thompson, J.L.** (2000). *Entrepreneurs: Talent, Temperament, Technique*. Publisher: Butterworth-Heinemann, Oxford, U.K.
- Frans Jacobus Lotz** (2006). *Technological Entrepreneurship in an Emerging Economic Region: A Model Developed From A multi-Cultural Provincial Study, Ph. D. Thesis*, University of Pretoria, South Africa.
- Gnyawali, D.R., Fogel, D.S.** (1994). *Environments for Entrepreneurship Development Key Dimensions and Research Implications*. Entrepreneurship Theory and Practice, Pg. 43-62.
- Heeks, R.** (1996). *India's Software Industry: State Policy, Liberalisation and Industrial Development*. Publisher: Sage Publications, New Delhi, Thousand Oaks and London.
- Hisrich, R.D., Peters, M.P., Shepherd, D.A.** (2005). *Entrepreneurship*. 6th edition, Publisher: McGraw-Hill, New York.

Roberts, E.B. (1991). *Entrepreneurs in High Technology. Lessons from MIT And Beyond*. Publisher: Oxford University Press, Cambridge.

Roberts, E.B. (1991). *High Stakes for High-Tech Entrepreneurs: Understanding Venture Capital Decision Making*. Journal of Sloan Management Review, Winter 1991, Pg. 9.

Smilor, R.W., Freese, H.R. (1991). *Chaos and the Entrepreneurial process: Patterns and Policy Implications for Technological Entrepreneurship*. Journal of Business Venturing, Vol. 6, Pg. 165-172.

Timmons, J.A. (1994). *New Venture Creation. Entrepreneurship for the 21st century*. Revised 4th Edition, Publisher: Irwin/McGraw Hill, United States.

Venkataraman, S., Shane, S. (2000). *The Promise of Entrepreneurship as A Field of Research*. Journal of Academy of Management Review, Vol 25 (1), Pg. 217-226.

<http://msme.gov.in> , Ministry of Micro, Small and Medium Enterprises, (2006), Govt. of India

<http://www.entrepreneurship.org/>, A free, online Entrepreneurship International Resource.

<http://www.gemconsortium.org>, Global Entrepreneurship Monitor, Report, 2002, 2003, 2006 - 2010.

<http://www.itaa.org/> , Information Technology Association of America.

<http://www.kauffman.org/>, Kauffman Foundation, (2008).

<http://www.knowledgecommission.gov.in>, National Knowledge Commission, (2008). Govt. of India

<http://www.mit.gov.in>, Ministry of Communication and Information Technology, (2008), Govt. of India.

<http://www.nasscom.in>, National Association of Software and Service Companies, (2001), India

Annexure I

Table No. 1 : Distribution of influence of Central government policies of respondents according Present performance Level

Central government policies	Present performance level			Total
	Low	Moderate	High	
Negatively	12	8	4	24
Not at all	36	208	36	280
Positively	8	32	8	48
Total	56	248	48	352

Table No.2: Oneway ANOVA for influence of Central Government policies

Present performance score	Sum Squares	df	Mean Square	F-value		Sig.
				Calculated	Table Value	
Between Groups	3468.566	2	1734.283	8.270	3.00	.000
Within Groups	73187.040	349	209.705			
Total	76655.606	351				

Table No. 3: Distribution of influence of Central government initiatives of respondents according Present performance Level

Central government initiatives	Present performance level			Total
	Low	Moderate	High	
Negatively	4	12	4	20
Not at all	44	208	40	292
Positively	8	28	4	40
Total	56	248	48	352

Table No. 4: Distribution of influence of Central government initiatives of respondents according Present performance Level

Central government initiatives	Present performance level			Total
	Low	Moderate	High	
Negatively	4	12	4	20
Not at all	44	208	40	292
Positively	8	28	4	40
Total	56	248	48	352

Table No. 5: Distribution of influence of State government initiatives of respondents according Present performance Level

State government initiatives	Present performance level			Total
	Low	Moderate	High	
Negatively	12	8	4	24
Not at all	28	200	32	260
Positively	16	40	12	68
Total	56	248	48	352

Table No.6: Oneway ANOVA for influence of state initiatives

Present performance score	Sum of Squares	df	Mean Square	F-Value		Sig.
				Calculated	Table Value	
Between Groups	4161.885	2	2080.942	10.018	3.00	.000
Within Groups	72493.721	349	207.718			
Total	76655.606	351				

Table No. 7: Distribution of influence of Local government initiatives of respondents according Present performance Level

Local government initiatives	Present performance level			Total
	Low	Moderate	High	
Negatively	12	8	4	24
Not at all	24	200	36	256
Positively	20	40	8	72
Total	56	248	48	352

Table No.8: Oneway ANOVA for influence of local initiatives

Present performance score	Sum of Squares	df	Mean Square	F-value		Sig.
				Calculated	Table Value	
Between Groups	4841.890	2	2420.945	11.765	3.00	.000
Within Groups	71813.715	349	205.770			
Total	76655.606	351				

Table No. 9: Distribution of influence of Private Sector initiatives of respondents according Present performance Level

Private Sector initiatives	Present performance level			Total
	Low	Moderate	High	
Negatively	0	20	0	20
Not at all	28	144	36	208
Positively	28	84	12	124
Total	56	248	48	352

Table No. 10: Extract of Chi-Square test

Sr. No.	Null Hypothesis	Chi-Square Calculated Value	Chi-Square Table Value	Result of Test
1	Private Sector initiatives and success of enterprise.	16.29	9.46	Rejected
2	Non - government organisation and success of enterprise.	17.375 ^a	9.46	Rejected
3	Tax incentives and success of enterprise.	5.290 ^a	9.46	Accepted
4	Healthy climate and success of enterprise.	25.179 ^a	9.46	Rejected

5	SMME initiatives and success of enterprise.	10.544 ^a	9.46	Rejected
6	IT sector policies and success of enterprise.	6.602 ^a	9.46	Rejected

Table No.11: Oneway ANOVA for Private sector Initiative

Present performance score	Sum of Squares	df	Mean Square	F-value		Sig.
				Calculated	Table Value	
Between Groups	3752.542	2	1876.271	8.982	3.00	.000
Within Groups	72903.064	349	208.891			
Total	76655.606	351				

Table No.12: Oneway ANOVA for Non-Govt organisation Initiative

Present performance score	Sum of Squares	df	Mean Square	F - value		Sig.
				Calculated	Table Value	
Between Groups	3679.259	2	1839.629	8.798	3.00	.000
Within Groups	72976.347	349	209.101			
Total	76655.606	351				

Table No. 13: Oneway ANOVA for Healthy Climate

Present performance score	Sum of Squares	df	Mean Square	F-value		Sig.
				Calculated	Table Value	
Between Groups	2281.068	2	1140.534	5.352	3.00	.005
Within Groups	74374.538	349	213.108			
Total	76655.606	351				

Table No.14: Oneway ANOVA for development initiatives of SMME

Present performance score	Sum of Squares	df	Mean Square	F-value		Sig.
				Calculated	Table Value	
Between Groups	1928.023	2	964.012	4.502	3.00	.012
Within Groups	74727.583	349	214.119			
Total	76655.606	351				

Table No. 15: Oneway ANOVA for IT sector Policies

Present performance score	Sum of Squares	df	Mean Square	F-value		Sig.
				Calculated	Table Value	
Between Groups	1828.379	2	914.189	4.264	3.00	.015
Within Groups	74827.227	349	214.405			
Total	76655.606	351				