

## **Factors Influencing the Success of Technopreneurship**

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## Abstract

Technopreneurship is a simple entrepreneurship in a technology intensive context. It is a process of merging technology powers with entrepreneurial talents and skills. Technopreneurship is one of the emergent concepts in the topical developments of business, particularly in developing countries which helps to attract the latest technology in entrepreneurship to achieve the sustainable development. There is a need for supporting technology-based entrepreneurship to reduce the operational cost and increase the efficiency. It is essential to evaluate the development of technopreneurs in a particular area will bring out the clear frame about technopreneurship. With this aspect, the present research evaluates the performance of technopreneurs those who are associated with software industries in Tiruchirappalli district. Technopreneurs are skilled in applied creativity, succeed in response to challenge, and look for unconventional solutions. They experience challenges, create visions for solutions, build stories that explain their visions, and then act to be part of the solution.

**Keywords:** Technopreneurship, Entrepreneurship, Technology-Based, Skills.

## Introduction

Technology is one of the dominated factors in the present industrial establishment. Application of technology has transformed into technology based business plays a key role in the entrepreneurship. Technopreneurship, it is a simple entrepreneurship in a technology intensive context. It is a process of merging technology powers with entrepreneurial talents and skills. Technopreneurship is one of the emergent concepts in the topical developments of business, particularly in developing countries which helps to attract the latest technology in entrepreneurship to achieve the sustainable development. Creativity in entrepreneurship is the pillar of economic growth of developing countries.

Technopreneur: In a simple way we can define that, "*Technopreneurs are thinks like an engineer and acts like an entrepreneur*". In our nation most of the people hearing the word technopreneur as very first time (*Paramasivan, 2016*). But this is an oldest one when compared with our neighbor nations. The United States and the United Kingdom has started technopreneurship process obviously in the 20<sup>th</sup> century. The United States and the United Kingdom has offered more opportunities to their technopreneurs from the very beginning. The developing countries like Malaysia, Singapore, Philippines, Iran etc., are offered an academic degree course called technopreneurship to their students. But in India, it is a new theme and it takes some time to reach the society. Ministry of India provides more promotional campaigns to induce the entrepreneurs to become a technopreneur. With this aspect, the present research gave an opportunity to evaluate the success of technopreneurs those who are associated with software industries in Tiruchirappalli district.

## Importance of Technopreneurship

Entrepreneurship is a way of thinking and acting that is opportunity obsessed, holistic approach and leadership balanced for the purpose of wealth creation. Searches for change, responds to it and exploit it as an opportunity. Innovation is the specific tool of entrepreneurs, the means by which they exploits change as an opportunity for different business or service. Technopreneurs are skilled in applied creativity, thrive in reply to the task, and look for unconventional solutions. They experience challenges, create visions for solutions, build stories that explain their visions, and act to be part of the solution. Technology based start-up should be the alternate solution to the inclusive growth; hence Technopreneurship is needed in an hour for the consistent growth of the economy of the country.

## Progress of Technopreneurship

Nowadays new types of entrepreneurs are emerging due to the nature of specialized skills and innovative thinking. Technopreneur is a person who destroys the existing economic order

by introducing, new products and services, by creating new forms of organizations and by exploiting new raw materials. It is someone who perceives an opportunity and creates an organization to pursue it. More opportunities and prospectus are associate with technopreneurs in the recent origin. Technopreneurs can be defined only with the help of their application of technology in the business. A person who sets up a business concerned with computers or similar technology. Simply we can mean that those who are all ready to incorporate the innovation and creativity in their business process with the help of technical background is generally called as technopreneurs. It may lead the nation with a new breed to train the entrepreneurial ventures in the technical world. Above all employee turnover is also significantly high in the IT & ITeS. Hence, the present study carried out the critical factors influencing the success of technopreneurs in Tiruchirappalli district.

### **Conceptual Background**

Technopreneurship has been considered as a way of life. Unemployment among graduates has become the global issues as well as in India. Hence, instead of looking for a job, graduates should encourage to create their own employment and it leads to generate more technopreneurs or entrepreneurs. Thus, higher educational institutions, as well as the ministries and policy makers of India have taken dynamic initiatives to encourage students to get involve in technopreneurship or entrepreneurship through different classes, seminars, and activities. The technopreneurial intention is one of the key points to identify the students' concentration in the field of technopreneurship. In this regard, very few research papers have been carried out on factors to clarify the technopreneurial intention.

A literature review is an account of what has been published on a topic by accredited scholars and researchers (*Paramasivan, 2011*). It provides valuable guidelines in formulating the theoretical framework of research at the time of the investigation. The literature on the subject of technopreneurship is an unexplored path of the study area. An attempt is made here to touch a selected review of literature in technopreneurship, technopreneurship education, IT & ITeS industry and software industry as a preface to the present study.

**Nassar and Sori (2017)** have reported that influence and shape innovation in different societies is the prevailing culture. Most forms of individualistic cultures affect innovation significantly and positively. This study has three key objectives, such as to examine how culture influences innovation among technology startups in Malaysia, to explore factors associated with technology innovation and to assess how innovation influence financing for technology startups.

**Paramasivan and Selladurai (2017)** have highlighted the Electronics Corporation of Tamil Nadu Limited has prepared to attract the widest possible range of business opportunities and ready to provide more number of employment opportunities to the young talents. However, to achieve this goal ELCOT has to continue its effort on inventing new business ideas through new business models for the better improvement.

**Selladurai (2016)** has prompted the entrepreneurial activities through innovation and technology. The researcher quotes that technopreneurship is a process of merging technology prowess and entrepreneurial talent and skills. Technopreneurs is the person who destroys the existing economic order by introducing, new products and services, by creating new forms of organizations and by exploiting new raw materials.

**Selvarani and Venusamy (2015)** have examined to explore the general elements in technopreneurship and to investigate the innovation and creation among small and medium enterprises. There are three relevant questions with respect to Indian SMEs were surveyed by the researchers. First and foremost, it is important to know whether at all, Indian SMEs are technologically innovative. Secondly, if yes, to what extent?

**Thillairajan and Jain (2013)** have reported that universities play an important role in providing incubation support: 67 percent of incubators are based in universities. It displayed virtually all the well-known technology institutions and many management institutions in India have incubation centers and it indicates that supporting entrepreneurship has emerged as an important activity of universities, in addition to the traditional activities of teaching, research, and industry partnerships.

**Manjunatha and Nagesha (2013)** have explained an overview of the three actively functioning STEPs located in different regions of the state of Karnataka and then dealt with Mysore in detail. The study analyzed the existing incubation facilities, services and the technologies transferred to the entrepreneurs by this STEP. It is found that despite Mysore offering the several facilities and services, they are not completely utilized by the tenant entrepreneurs.

**Rohit Trivedi et al. (2011)** has made an attempt to develop a reliable scale for accessing technopreneurial motives to observe the various factors which motivate a technopreneur to start a business can be identified and extracted. It spots with the help of cluster analysis, discriminant analysis and cross-tabulation, an attempt was done to identify groups of technopreneurs for better profiling.

**Priyadharshini and Selladurai (2016)** has explained the enormous activities which are ongoing in research and development areas and the platforms for new technologies and also resulting into the institutional background of innovating technologies. Government of India have initiated and introduced number of entrepreneurial and technopreneurial events to promote the business policy and induce the interest of the young generation to become an employment providers.

### **Overview of Technopreneurship in India**

Technopreneurship is an unseen concept that is placed in the core of many essential subjects. Many minds of literature use the term 'technology-based entrepreneurs', 'technical entrepreneurs', 'high technology entrepreneurs' and even 'high tech new ventures' to describe the new business that combine entrepreneurial skills and technology. Technopreneurship comprises of identifying modern technologies and even creation of technological opportunities by a presentation of commercial products and services. The technology-based entrepreneur is a process and formation of a new business that involves technology and these 'technopreneurs' use technological innovations and translate such technology into successful products or services.

Technopreneurship is the process of investing in a project which gathers and activate expert members with different assets, which relates to advancement in scientific and technological knowledge, in order to create and acquire value for a specific enterprise, the social context in which the entrepreneur operates also plays an important role in nurturing this concept, one of such ways are through attachment, where entrepreneurs are being embedded within the confined structure in the area in which they operate. The government should incorporate many promotional campaigns towards the success of technopreneurship and should launch several initiatives to promote technopreneurship as a witness of economic development.

### **Factors Influencing the Success of Technopreneurship**

Technopreneur is an entrepreneur who is technical know-how, creative, innovative, dynamic, dares to be different and take the unexplored path, and very passionate about their work. Industrial development is the only way to achieve the socio-economic empowerment of the people in the country which provides employment opportunities, income generation and remove the regional imbalances. Hence, the government concentrates more on the development of entrepreneurship. It becomes a vibrant part of the economy and transformed into new

dimensions like social entrepreneur, agropreneur and technopreneur. Everywhere technology plays a dominant role not only in business process but also in social distribution mechanism.

Technology has become more popular and powerful with the help of IT & ITeS industries in the country. Therefore, IT based industries are the backbone of the technology and innovations in business. Technopreneurship is not like other business, there is a need for updating and automation of their process and acquire technology and innovation mindset people as human resource. The cost involved in technology becomes a major problem in the industries which makes a sustainability of the business. Most of the IT and IT enabled industries were spending a huge amount of money to establish the appropriate technologies to compete with other players in the market.

A technopreneur does not look upon his initiative as a means of bringing competitors to repair, but as the master key for opening wider and brighter views for the benefit of the entire community of technopreneurs. The domain of technology is nothing if not a tempting view of an infinite range of possibilities and admits of the communal partnership of technopreneurs with no danger for any of them of compromising their own unique solutions and actions. Competition, not competition, will be the dominant mode of co-existence in the emergent technopreneurial culture. Replacement of existing technology and services are the major challenges which gains major production cost in these industries. Acquiring skilled manpower in another challenge in these industries.

#### Analysis and Interpretation

#### Technopreneurs Educational Qualification Vs Factors Influencing the Success

**Ho:** There is no significant difference between the educational qualification and factors influencing the success of technopreneurship.

Table 1

Dimension	Source	Sum Squares	df	Mean Square	F	Sig.
<b>Personal Factors</b>	Between Groups	41.056	3	13.685	4.253	0.012*
	Within Groups	106.188	33	3.218		
	Total	147.243	36			
<b>Intellectual Factors</b>	Between Groups	32.371	3	10.790	2.443	0.081
	Within Groups	145.738	33	4.416		
	Total	178.108	36			
<b>External Factors</b>	Between Groups	147.069	3	49.023	5.784	0.003**
	Within Groups	279.688	33	8.475		
	Total	426.757	36			

\*\*Significant at 1% level; \*Significant at 5% level

Oneway ANOVA was applied to find the significant mean difference between the educational qualifications and factors influencing the success of technopreneurship and the result showed that there is a significant difference between the education (Graduate, Postgraduate, Professional and Others) of technopreneurs towards personal factors (F-value = 4.253,  $p < 0.05$ ). Also, it is seen from the above table that there is no significant difference between the educational qualification of technopreneurs and the intellectual factors (F-value = 2.443,  $p > 0.05$ ) and there is a significant difference between education and the external factors (F-value = 5.784,  $p < 0.01$ ).

### Technopreneurs Experience Vs Factors Influencing the Success

**Ho:** There is no significant difference between the experience and factors influencing the success of technopreneurship.

Table 2

Dimension	Source	Sum Squares	df	Mean Square	F	Sig.
<b>Personal Factors</b>	Between Groups	96.056	3	4.098	2.642	0.000**
	Within Groups	51.188	33	1.551		
	Total	147.243	36			
<b>Intellectual Factors</b>	Between Groups	72.754	3	24.251	7.596	0.001**
	Within Groups	105.354	33	3.193		
	Total	178.108	36			
<b>External Factors</b>	Between Groups	92.403	3	30.801	3.040	0.043*
	Within Groups	334.354	33	10.132		
	Total	426.757	36			

\*\*Significant at 1% level; \*Significant at 5% level

Oneway ANOVA was applied to find the significant mean difference between the experience and factors influencing the success of technopreneurship and the result showed that there is a significant difference between the experience (less than a year, one to five years, six to ten years and more than ten years) of technopreneurs towards the personal factors (F-value = 2.642,  $p < 0.01$ ). Also, it is seen from the table that there is a significant difference between the experience of the technopreneurs and the intellectual factors (F-value = 7.596,  $p < 0.01$ ) and the external factors which are influencing the success of the technopreneurs (F-value = 3.040,  $p < 0.05$ ).

### Training Attended Vs Factors Influencing the Success

**Ho:** There is no significant difference between training attended and factors influencing the success of technopreneurship.

Table 3

Dimension	Source	Sum Squares	df	Mean Square	F	Sig.
<b>Personal Factors</b>	Between Groups	59.100	3	19.700	7.376	0.001**
	Within Groups	88.143	33	2.671		
	Total	147.243	36			
<b>Intellectual Factors</b>	Between Groups	5.324	3	1.774	1.263	0.000**
	Within Groups	46.357	33	1.405		
	Total	178.108	36			
<b>External Factors</b>	Between Groups	74.900	3	24.967	2.342	0.091
	Within Groups	351.857	33	10.662		
	Total	426.757	36			

\*\*Significant at 1% level

Oneway ANOVA was applied to find the significant mean difference between the training obtained and factors influencing the success of technopreneurship and the result showed that there is a significant difference between the training obtained (Entrepreneurship Development Programme, Incubation Centres, Skill Development Centres, PMEGP Training and training never obtained) towards personal factors (F-value = 7.376,  $p < 0.01$ ) and intellectual factors (F-value =

1.263,  $p < 0.01$ ). Also, it is seen from the above table that there is no significant difference between training obtained and the external factors (F-value = 2.342,  $p > 0.05$ ).

**Technopreneurs Year of Existence Vs Factors Influencing the Success**

**H<sub>0</sub>:** There is no significant difference between the years of existence and the factors influencing the success of technopreneurship.

Table 4

Dimension	Source	Sum of Squares	df	Mean Square	F	Sig.
Personal Factors	Between Groups	43.007	3	14.336	4.538	0.009**
	Within Groups	104.236	33	3.159		
	Total	147.243	36			
Intellectual Factors	Between Groups	7.572	3	2.524	0.488	0.693
	Within Groups	170.536	33	5.168		
	Total	178.108	36			
External Factors	Between Groups	30.465	3	10.155	1.845	0.000**
	Within Groups	181.636	33	5.504		
	Total	426.757	36			

\*\*Significant at 1% level

One-way ANOVA was applied to find the significant mean difference between the years of existence and the factors influencing the success of technopreneurship and the result showed that there is a significant difference between the existence (less than two years, two to four years, five to ten years and more than ten years) of enterprise towards personal factors (F-value = 4.538,  $p < 0.01$ ) and external factors (F-value = 1.845,  $p < 0.01$ ). Also, it is seen from the above table that there is no significant difference between the years of existence and the intellectual factors which are influencing the success of the technopreneurs (F-value = 0.488,  $p > 0.05$ ).

**Location of the Enterprise Vs Factors Influencing the Success**

**H<sub>0</sub> :** There is no significant difference between the location of enterprise and factors influencing the success of technopreneurship.

Table 5

Dimension	Source	Sum of Squares	df	Mean Square	F	Sig.
Personal Factors	Between Groups	12.914	1	12.914	3.365	0.075
	Within Groups	134.329	35	3.838		
	Total	147.243	36			
Intellectual Factors	Between Groups	1.394	1	1.394	0.276	0.603
	Within Groups	176.714	35	5.049		
	Total	178.108	36			
External Factors	Between Groups	7.761	1	7.761	0.648	0.426
	Within Groups	418.996	35	11.971		
	Total	426.757	36			

One-way ANOVA was applied to find the significant mean difference between the location of enterprise and factors influencing the success of technopreneurship and the result showed that there is no significant difference between the location (Urban and Semi-Urban) of the enterprise towards personal factors (F-value = 3.365,  $p > 0.05$ ). Also, it is seen from the table that there is no significant difference between the location of the enterprise and the intellectual factors

(F-value = 0.276,  $p > 0.05$ ) of the technopreneurs and also the external factors which are influencing the success of technopreneurs (F-value = 0.648,  $p > 0.05$ ).

### Conclusion

Technopreneurship in Tiruchirappalli district is one of a unique study which offers information about demographic and economic status, business performance, skills required to be a technopreneur, reasons for technopreneurship, factors influencing the success of technopreneurship and problems faced by the technopreneurs. With this view, the study concludes that Tiruchirappalli district having more technology based educated youths, but the number of technopreneurs is very less due to lack of awareness. Therefore, educated youths should motivate and encourage them to involve in technopreneurship activities. Performance of technopreneurs in the study area is significantly good, but they are facing a lot of problems such as financial, operational and marketing problems. If the governing authority properly monitors and regulate the technopreneurs, they will be the major contributors in regional as well as national economic growth.

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