# An investigative study of Government initiatives and Success of ICT Start Ups in Pune

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**Abstract**

Information and communications technology (ICT) is a subset of information technology (IT) that emphasises the role of unified communications and the integration of telecommunications and computers, as well as the required enterprise solutions, software, storage, and sound systems, in allowing consumers to connect, store, distribute, and manipulate data. (ICT is an extensional: Course hero, March 03, 2020)

This present research addresses the Government initiatives and its association with the success of ICT start-ups in pune District. The results suggest that Government initiatives do not significantly improve the success of the ICT start-ups. Efforts of governing bodies, NOG and Start-up incubation centres can help to further lead to success of ICT start-ups.

*Key words: ICT, Success of ICT, Government initiatives.*

## 1. Introduction

The components and infrastructure that make modern computing possible are referred to as ICT (information and communications technology).

Due to the fact that there is no single, generally agreed meaning of ICT, it is widely accepted to refer to all devices, networking components, technologies, and systems that, when combined, allow people and organisations to interact in the digital world.

ICTs, or information and communication technologies, enable users to engage in a rapidly evolving environment in which access to diverse and emerging technologies is increasingly transforming work and other activities. As of 2009, the Indian Information Technology and industry contributed 5.9% of the country's GDP and export earnings, thus employing a large portion of the country's tertiary sector workforce. More than 2.3 million people are directly or indirectly working in the industry, making it one of India's largest job creators and a mainstay of the economy (IT and ICT: Government of India,2021).

**The Importance of ICT in Business**

ICT developments have provided enterprises with a slew of cost savings, opportunities, and conveniences. These range from extremely automated enterprise applications that have lowered prices to the big data revolution, in which businesses are turning the vast amount of data generated by ICT into insights that drive new products and services, to ICT-enabled transactions like internet shopping and telemedicine, as well as social media, which give customers more choices in how they shop and communicate.

However, ICT has created difficulties and obstacles for organisations, individuals, and society as a whole. Digital technology, increased use of high-speed networking, and the worldwide web's expansion have all combined to produce new levels of crime, where "bad actors" can invent internet-connected schemes or unlawfully gain access to networks in order to steal money, intellectual property, or private information, or to disrupt critical infrastructure management systems. Automation and robotics have also been introduced as a result of ICT, displacing staff who are unable to move their expertise to new roles. And ICT has allowed an increasing number of people to restrict their interactions with others, resulting in what some fear is a population that has lost some of its humanity. (Pratt, M., July 26, 2019)

In recent years, India's Narendra Modi-led government has been concentrating more and more on a wide range of emerging entrepreneurs, and to that end, the government has introduced new programmes and

opportunities aimed at bringing out the best in these businesses and assisting them in innovation and nurturing. (Singh, G.)

The two main issues addressed in the present research are the subjects related to Government Initiatives for ICT growth and its association with the success of ICT start-ups. The research is restricted to boundaries of Pune District Only.

Significant economic drivers driving the country's growth and modernization are the information and communication technology (ICT) market & India's digital economy. IT-BPM, e-commerce, domestic electronics manufacturing, digital payments, digital communication services (including telecom), and other aspects of India's ICT industry account for more than 13% of the country's GDP, with the digital economy producing more than $200 billion per annum. India is on track to have a $1 trillion digital economy and a $5 trillion GDP by 2025. As per NASSCOM, a trade body for the technology industry, India's IT-BPM revenue will rise 7.7% from $177 billion in FY2019 to $191 billion in FY2020. From 1999 to 2009, India's IT services and business process management industry expanded at an unprecedented pace (1,800 percent), adding $68 billion in revenue over the decade to cross $177 billion in FY2019.( India - information and communication technology,021 )

## 2. Literature Review

The body of knowledge of general entrepreneurship in the sales, services, and technology-based business domains is well researched and established in developed regions. This is not the case in developing regions for technological entrepreneurship. Little is known about the entrepreneur, new venture creation, and growth processes of emerging technology-based enterprises. This study looked at a specimen of practising technological businessmen in an inter province in a new economic region. The findings led to the development of a three-part model that recognises the most significant external stimuli on the high technology industrialist, the entrepreneurship process, and the mature business. The local government played a vital role in technology-based enterprise in the province of KwaZulu-Natal, South Africa. (Frans Jacobus Lotz, June 2006)

For companies operating in technical niches, expanding into international markets can be a way to boost revenue and thereby collect early operating expenses in a shorter period of time. Study analysed data from nearly a million British and German high-tech start-ups, the study investigates if internationalisation contributes to increased output in high-tech start-ups. According to the findings, firms with foreign revenues outperform firms which only sell locally. According to the findings of the study, the technical maturity of technologies and the experience of entrepreneurs have a positive impact on development. Furthermore, intense rivalry and smaller periods of opportunity intensify the demand to expand quickly in order to capture the benefits of innovation. The results imply that high-tech company founders need to be more resolutely international in their objectives and values from the start of their venture in order to optimize the economic impact of their efforts and this benefiting the local governments. (Bürgel, Oliver; Fer et.al, 2000)

The ICT sector in France is distinguished by high firm population density, but also by a high mortality rate. Just 38.7 percent of companies survived five years after their inception, compared to 51.0 percent in middle high technology and 46.3 percent in non-innovative divisions (Lasch, 2003). New ICT companies, predominantly SMEs, are highly vulnerable, so the current chapter proposes to address the critical issue of survival and development in innovation and information sectors. This study is predicated on the premise that companies are not all alike and that disparities among them will have an impact on development and survival. The primary goal is to identify critical success factors. The study looked at the influence of many factor categories, including the businessman's intellectual resources and job experience, planning and from before the practises, initial organizational culture, and inter-firm collaboration. (Lasch, Frank & Le Roy, Frédéric & Yami, Saïd. (2005).

Despite their popularity, the evolution of social startups is seldom studied. Thus, the advent of ICT-based community start-ups is examined for this document and use a several case study research approach. To that end, five social start-ups are chosen and analysed in depth using a mixture of purposive and

convenience selection, based on Lanteri's (2015) model for the growth of social ventures. Data triangulation is used to gather data from both primary and secondary sources, and eight cofounders are consulted. Furthermore, duplication logic is thought to be capable of generalizing the findings. Furthermore, in order to gain a better understanding of the phenomenon, the history of social entrepreneurship and its emergence in Iran is detailed. The findings indicate that the development of social entrepreneurship in Iran can be divided into three stages: old Persia, the arrival of Islam, and the advent of entrepreneurship as a sector. Finally, the results are divided into four groups: I method, (ii) social entrepreneur/founder, (iii) activities, and (iv) organisation. (Aidin Salamzadeh, Zahra Arasti and Ghanbar Mohamadi Elyasi, 2017)

In Korean economy, the impact of entrepreneurship on entrepreneurial growth is worth studying. The long-term international financial depression is currently increasing, and fears about potential uncertainty are expanding across our society. The Busan region's ICT majors are no exception, so business start-up is being considered as a new option to thrive and develop in such volatile environments at home or abroad. That is, business start-ups and entrepreneurship are being stressed as a strategy by which individuals can change not only their own lives, but also the fate of a region or even the fate of a nation. As a result of the study, young people will be able to effectively lead their start-up companies due to their enterprising spirit, networks, and leadership and learning with sheer commitment. As a result, it is critical that such a network and leadership-based entrepreneurship become foundational in overcoming the long-term Korean financial catastrophe surviving in such an ambiguous situation; leading the progress and advancement of the Busan region; and being the driving force for national growth, by improving the students' distinctive features and strengths. (Cheolwoo Park, 2017)

India accounts for four percent of global GDP today. Startup India is the flagship initiative of the Government amidst fanfare and euphoria. The strategies of the Central Government take into account the collective aspirations and enterprise of the risk taking Indian. The success of the Silicon Valley startups has many indomitable and resolute Indians in the heart of it. India aspires to contribute to 15-20 percent global GDP. It happens when Startup movement attains critical mass. Startup India looks beyond the argument that it is a better packaging of existing institutional support. (Dr.Shailja Badra and Vivek Sharma, February 2016)

Entrepreneurial ecosystems are now a days receiving keen attention from the research scholars and corporate practitioners. A resurech focused on the factor affecting an entrepreneurial ecosystem in the metropolitan cities in India; however, prior research has not offered a theory of entrepreneurial ecosystems that predict the initial funding of a startup based on the education, gender and experience of the founder. (Neeraj K Pandey, April 2018)

## 3. Research Methodology

### 3.1. Objective of the study

- To explore role of Government Initiatives for ICT growth and success of ICT start ups

### 3.2. Scope of the study

The study is restricted to related Government Initiatives for ICT growth and resultant success of ICT companies only.

### 3.3. Data Collection

The examination depends on primary and secondary information that has been gathered from ICT companies, research papers and other distributed data. Primary data is collected from owners, promoters and top executives of ICT companies. Secondary data is from various articles, web sources, research papers etc.

### 3.4. Hypothesis

Null Hypothesis ($H_0$) – Government Initiatives Do Not Improve Success of the ICT start-ups

Alternate Hypothesis ($H_a$) – Government initiatives improve the success of the ICT start-ups

### 3.5. Sample Size and Method

Sample Size: 61

Sampling Method: Purposive Sampling (Companies and its representatives are purposively selected to get accurate and real time data)

### 3. Analysis and Findings.

#### I. Correlation matrix (Pearson):

| | Startup success. | Government initiatives |
|---|---|---|
| Startup success. | 1 | |
| Government initiatives | 0.342714644 | 1 |

**Values in bold are different from 0 with a significance level alpha=0.05**

This test indicates the correlation between the two variables selected i.e. Government Initiatives and ICT Start-up success. The index value of 0.34 shows that there is weak association between the two variables. But to find the nature of association between them, we need to go for another test which is as mentioned below.

#### II. Linear regression

| Regression Statistics | |
|---|---|
| Multiple R | 0.3427 |
| R Square | 0.1175 |
| Adjusted R Square | 0.0496 |
| Standard Error | 0.3517 |
| Observations | 15.0000 |

**ANOVA**

| | df | SS | MS | F | Significance F |
|---|---|---|---|---|---|
| Regression | 1 | 0.2140 | 0.2140 | 1.7301 | 0.2111 |
| Residual | 13 | 1.6082 | 0.1237 | | |
| Total | 14 | 1.8222 | | | |

| | Coefficients | Standard Error | t Stat | P-value | Lower 95% | Upper 95% | Lower 95.0% | Upper 95.0% |
|---|---|---|---|---|---|---|---|---|
| Intercept | 2.9012 | 1.0421 | 2.7842 | 0.0155 | 0.6500 | 5.1525 | 0.6500 | 5.1525 |
| Government initiatives | 0.3251 | 0.2472 | 1.3153 | 0.2111 | -0.2089 | 0.8591 | -0.2089 | 0.8591 |

**Equation of the model (Start-ups success):**

**Start-ups success =2.9012 +0.3251 Government initiatives**

From the R square and adjusted R square values which are very less than 0.5 value, having values of 0.11 and 0.04 respectively, indicate the weak relationship between the two variables indicating that the startup variable has insignificant impact on the startup success.

## III. Anova: Single Factor:

| Source of Variation | SS | df | MS | F | P-value | F crit |
|---|---|---|---|---|---|---|
| Between Groups | 0.0333 | 1 | 0.0333 | 0.2426 | 0.6262 | 4.1960 |
| Within Groups | 3.8472 | 28 | 0.1374 | | | |
| Total | 3.8806 | 29 | | | | |

**Test interpretation:**

As the computed F critical-value is higher than the F, one should accept the null hypothesis H0, and reject the alternative hypothesis Ha. Thus, it can be concluded that "**Government Initiatives Do Not Improve Success of the ICT start-ups**" based on the data analysis above for the given sample population.

### The data analysis indicates that

- A weak correlation exists between Government initiatives and Start-up success as per the correlation tests done.
- Regression test suggest that though government initiatives have impact on the ICT start-up success, but not significantly, with respect to the sample taken for the study in the pune district.
- The data analysis for the sample proves that Government initiatives do not significantly improve the success of ICT start-ups

## 4. Conclusion

From the above research it can be concluded that Government initiatives do not have a significant impact on Start-up success. The connotation between Government initiatives and Start-up success is clearly visible. For better success rate of Start-ups improved penetrations of government initiatives amongst budding companies would prove to be a boon.

The research can be additionally prolonged to a larger respondent base to get extra understandings of the subject. Also, similar research can be conducted on companies located in varied places like Mumbai, Bangalore etc. to get ICT conditions regarding specific locations. Also, further studies and investigations can be done to compare the developmental status of various demographic locations where ICT is booming.

## 5. Suggestions

A moderate degree of association and intern dependence exists between Government initiatives and Start-up success. This degree of association can be further increased by efforts of governing bodies, NOG and Start-up incubation centres by taking special efforts to improve start-up development.

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