ORIGINAL RESEARCH PAPER

MANAGEMENT CHALLENGES IN INFORMATION TECHNOLOGY SERVICES STARTUPS

Management

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ABSTRACT

A study of understanding the aspects which drive Information Technology services startups to effectively manage to start up, sustain and grow the business in India is explored in this study. After the initial 2 years of the venture formation, startup saga continues to the growth stages and understanding the challenges of sustaining and growing the Information Technology Services startup organizations in India, which has been a major contributor to Indian Exports and GDP growth has been the core research area of this study. The business challenges faced during initial set up years (0-2 years) may vary from business challenges faced during growth years (2-10 years). Research Objectives focus on studying initial years as well as growth years of the Information Technology Services startups to understand the similarities, differences in the attributes needed during various lifecycle stages of the organization. The qualitative study addresses understanding the characteristics of success factors in Information technology services startup and the specific problem in the lack of understanding the various business challenges and reasons behind various aspects that leads to the success or failure of technology start-ups

Background To The Research Study

With the advancement of Information Technology and computerization, IT industry became one of the emerging industries in 1990s and India became an important Information Technology service provider hub to the global community, which was supported by encouraging parameters like knowledge know-how, fresh talent availability due to the increased number of engineering graduates in India and the emergence of knowledge workers which was lacking in the western world. After the Year 2000, these Technology Service providers extended their services to various industries and domains with the ever-changing and emerging technologies. In the early 2000s, IT industry witnessed dotcom boom and while IT as an industry by then had become a critical backbone of many businesses, it became de- facto goal of organizations to keep up with technology to survive and grow in economy with other competitors in the global world.

The range for the Total Entrepreneurial Activity (TEA) index of India was at the level of 11.2% which was 9th from the top in 2001 (GEM report, 2001). While, India became one of the major hub as the largest technology service provider, we have many names like Infosys, Wipro, Tata Consultancy Services et al., which emerged as Indian multinational companies in the Information Technology services area in the global market. However, there are many other Information Technology services companies which were started in India, and are currently supporting global businesses but we do not have studies conducted to understand the Information Technology services startup phenomena which is necessary to encourage venturing out in the Information Technology services arena in India. The range for the Total Entrepreneurial Activity (TEA) index of India is currently at the level of 10.6% which is 31st/ 65 from the top in the year 2016 (GEM report, 2016).

India witnessed 4300 technology based startups with 43% of the share against non- technology based startups in India during 2015 (Nasscom Startup India report, 2015). Sector wise concentration of Technology Startups being Consumer Internet sector 12%, E- Commerce sector 33%, Business-to-business B2B sector 24%, Mobile Apps sector 10%,Software as a service (SAAS) – 8%,Otherg sector amount to remaining 13% (Nasscom Startup India report 2015).

The founders/entrepreneurs are the driving force behind the startup's initial phase, perhaps during growth phase along with other core founding members and senior management team members and would play active roles in the success of the startup venture. These small companies are developing a

new product/service, validating in the market and looking at scalability option to expand their new business. As growing a new business needs funding, they look for investments from angel investors, venture capitalists, plan for IPO or be acquired by bigger companies to leverage on the resources available in bigger companies. In order to take the venture through its planned growth, while tweaking execution as external environment changes, the criteria that would attract any outside funding becomes a vital element for an entrepreneur. Planning, tracking and controlling critical elements to ensure business value and return of investment is essential for a technology services startup. In order to guide this aspect at large to envision and support various elements crucial for a successful and sustained venture, a study of understanding these aspects in Information Technology services sector is explored in ventures started in India during 2000-2012 in this study. The startup saga continues from initial concept to the growth stages and understanding the business challenges of sustaining and growing the Information Technology services Startup organization is the core research area in this study and research questions are formulated for initial years as well as growth years of the startup to understand the similarities, differences in the characteristics of various attributes needed during various lifecycle stages of the organization.

Even though, there has always been a continuous buzz in the Information Technology (IT) Industry and IT industry has been an attraction to entrepreneurs and investors in the millennium, there are a very few success stories which are beyond anyone's expectations. Top 5 Indian Information Technology Services providers are Tata Consultancy Services, Infosys, Cognizant, Wipro, and HCL Technologies (Gartner, 2012). There are many Information Technology services companies which are started in India, supporting global businesses. IT industry has witnessed many startup venture failures as well during dotcom burst in the year 2000 and economic slowdown during 2007-2008 which affected India as well as western economies.
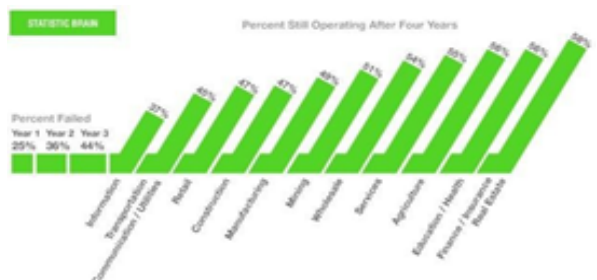
Failure of startup companies creates serious problems to stakeholders – employees, customers, suppliers, venture capitalists (VCs) and society at large. There is a lack of understanding of reasons for high rate of failure in IT Services sector. The high failure rate of startups drives Venture Capitalists away from investing in technology startups which results in reduced contribution to national economic growth. There is a need to find solutions to this serious concern.

As per NASSCOM, Information Technology services sector is the fastest growing sector in the Indian domestic market, growing at 14.5 percent to reach 674 billion, driven by IT outsourcing, platform services on cloud and increasing IT adoption from all customer sectors
– enterprise, consumers, government and SMEs.

Researchers haven't specifically concentrated on the Information Technology services startup phenomena in India which created IT boom in India, contributes significantly to Indian export economy as well as being service providers to Indian domestic market. Understanding the IT Services companies in India is necessary to encourage venturing out in the Information Technology services arena to continue to tap the global market share and expand the technology service portfolios relevant and in sync with the technological innovations in IT industry.

A research study which allows us to understand the phenomenological aspects is beneficial to future entrepreneurs to initiate and grow the Information Technology services and their success factors including external economic factors to an extent. Also, the government policy makers and private and government supported business incubation initiatives if rightly beneficial can cater to the specific needs of the Information Technology services sector to nurture and support the sector for continued growth and contribution to Indian exports and domestic consumption of its services.

Problem Statement
The below figure shows that the success rate of Information Technology ventures is 75% during first year, 64% in the 2nd year, 56% during the 3rd year and 37% during the fourth year. This clearly indicates that success rate of Information Technology startups is declining year by year. Therefore, there is a need to understand business challenges faced by startup during the initial stage and growth stage to sustain the business venture.

Figure 1 - Percent of startups Operating after four Years (Source: Statistic Brain Institute

This startup phenomenon has to be studied to understand the factors affecting success so that those critical success factors can be adopted by others which reduce the failure rates of startups. The resulting findings become the supporting guidelines to upcoming entrepreneurs and to VCs to validate their investments against the factors followed by successful ventures and entrepreneurs. Therefore there is a need to achieve a deeper understanding of the success factors in Information Technology services Startups in India in various perspectives for successful management of the Information Technology services enterprises.

Definitions
a. Definition of Success of a Startup
Earlier researchers used different measurement scales to define the success of startups - such as being acquired by another company, or going public via IPO or getting merged with bigger companies (Hourd & Williams, 2008). Some researchers considered launching products on the market, gaining planned revenues, or profitability as success of startups (Hourd & Williams, 2008).

The definition of success of startup used in the current study was running the organization profitably or getting acquired or merging with other organization or going to IPO.

b.   Definition of Failure of a Startup
-Discontinuation, suspending operations, filing bankruptcy, or business liquidation to prevent further losses are treated as failure of startup organization‖(Carter and Van Auken, 2006). According to Watson and Everett (1996), failed organizations include organizations that discontinued operations, bankrupted, closed to avoid further losses, or failed to reach A lot of studies has been conducted to investigate reasons for failure of startups during first two years (Initial/Infant stage). No authenticated study has been conducted to investigate challenges faced by startups during the initial stages as well as growth stages of technology services ventures. The current research study has focused on challenges faced by startups in the following categories:
1. Founding Team Dynamics - Age, gender, marital status, prior work experience
2. Enterprise strategic planning - Business plan, Execution challenges in IT Services Startups
3. IT Services Startup Ecosystem - Market, Government regulations, Tax policies, skilled resource availability
4. Enterprise internal strategies and execution-Hiring strategies, solution Strategies, customer acquisition, delivery strategies, and growth strategies adopted.

As huge amount entrepreneurial effort, technology training efforts, high cost of knowledge based resources are invested in creation of new IT services ventures, the failure of these enterprises creates a lot of socio-economic problems. Therefore it is necessary to investigate the success factors of technology services startups during first two years of operations and to understand the challenges faced by surviving enterprises during the growth stage in order to reduce the failure rate of Information Technology services startups during growth stage. There is a need to understand factors or characteristics of attributes which differ during initial years vs. growth years.

Objective of the study
Primary objective of the study is to investigate challenges faced by Information Technology services Startups in India during initial setup and growth period.

The specific objectives of the study are:
1. To explore the growth prospects of IT Services startups in India
2. To identify the various challenges faced by IT Services startups in India
3. To evaluate the support system available for technology services startups during creation and growth of new enterprises in India
4. Suggest or recommend a Success factor model for Information Technology Services startups in India

Research Questions
R1: What are the founding team dynamics which contribute to success of IT Services startups in India?
R2: What are the management styles of Entrepreneurs or Founding team or senior management team which contribute to success of IT Services?
R3: What is the role of strategic business plan and Intellectual property on success of IT Services startups in India?
R4: What are the environmental factors, Example: market, government regulations, tax policies, and talent availability that offer opportunities or challenges and how do these factors contribute to success of Information Technology services startups?
R5: What are the internal business management challenges and what internal execution strategies were undertaken during initial and growth phases that contribute to success of IT Services startups in India?

The selected startups would include companies from IT Services sector in India that achieved success by running successfully (company status during the interview) or went for IPO or getting merged or acquired by other entity for profit; or failed entities identified by discontinuation, shutting down operations, or filing for liquidation to prevent further losses of Information Technology services startup organization.

financial goals and profit to stakeholders. Dun and Bradstreet in 1998 defined startup failure as ceasing operations of business with losses to creditors and shareholders.

Assumptions
The current research assumes that the perspectives and insights shared by the participants in IT Services industry would be similar to other entrepreneurs/leaders/senior management team members from IT Services industry and can be used to generalize to build a conceptual framework.

Another assumption is that the participants are honest in their responses.

Third assumption is that the findings and recommendations would be assumed to be helpful to future Entrepreneurs/ senior management team members, researchers to use them in their future ventures.

Scope of the Study
India based IT services startups incubated between years 2000 – 2012 which have service portfolio in areas of – Application (Software) Development and Maintenance Services, Infrastructure Management Services, Testing Services, IT Consulting and Training, System Integration Services, Cloud Computing Services, Data Analytics Services and Mobile Computing Services.

Limitations of the study
*   The participants are limited to one country, India. The study is limited to focus solely on Indian Information Technology services Startups might help to identify the possible factors of success related only to the Indian based IT Services organizations.
*   The study might end up with different results if conducted in other countries.
*   This study is based on technological/economic environment encouraging Information Technology services entrepreneurship as prevailing in India in twenty first century. A radical change in these two factors, at a later point of time, may throw up different results.
*   Study concentrated on management challenges in Information Technology services startups in India, extending the data analysis into success factors contributing to the growth of technology startups in India. However, specific failure factors detrimental to the growth.

Utility of the Study
The inception of startup organization results in the creation of jobs, hence startups provide a significant contribution to economic growth (Backes-Gellner & Werner, 2007; Carter & Van Auken, 2006). A better success rate for Information Technology services Startups might inspire more entrepreneurs to establish more Information Technology services startups, Venture Capitalists to invest in more Information Technology services Startups and contribute more to GDP of India and society as entrepreneurship supports creation of jobs,the conditions for a better society, and value addition to the Information Technology services industry sector. At another level, it might well end up increasing productivity of those companies which are consuming the Information Technology service offerings.

The findings of the study might assist existing Information

Technology services startup organizations which are in 0-2 years of formation (Initial / Infant stage) in understanding the importance of various strategies which have helped earlier Information Technology services.

Startups to have initial setup, sustain and adopt the success factors to their organizational growth.

Because the startup success phenomenon is significant to the future of startups, the findings from this research study might help to increase startups' success rates. Information on patterns that emerge as successful startup factors add to the body of literature on Information Technology services startup organizations. Entrepreneurs and management team members can benefit from the findings and recommendations of the current study to handle the various strategic and tactical business challenges better, with the insights in achieving success in Information Technology services Startups.

*   The qualitative exploratory research work currently undertaken is significant as it resulted in an in-depth understanding about how IT Services startups handle business management challenges during initial set up years of a new venture / startup and sustain and grow the business.
*   The results can be used as be inputs to policy makers of India to provide an entrepreneurship nurturing environment/ecosystem which creates new job opportunities to the youth of the country and hence indirectly solve some of the social issues in India pertaining to unemployment.
*   Better understanding of the business challenges in the path of successful strategic and tactical business strategic planning and execution.
*   Gain knowledge and develop skills in management strategies and strategy execution in facing such business challenges.
*   Research scholars benefit from the findings of the research study to add to the body of academic knowledge related to Information Technology services startup organizations.

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