



## WHY DOES INDIAN START-UP NOT GROW BIG?

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### ABSTRACT

We live in start-up era like never before. A few years we used to admire entrepreneurs in magazine and TV interviews only. But now we are seeing entrepreneurs even in our circle. Thousands of start-ups have buzzed in past half decade in India. Flipkart, OYO, Ola, Paytm, Zomato are some few start-ups that became successful. India has become the 3<sup>rd</sup> largest ecosystem for start-up in the world. However, a survey showed that the 90% Indian start-up fails within the first 5 years of inception. Well, there are many reasons for failure of start-up. In this study we are going to analyse some of their reason and try to solve those problems using Artificial Intelligence. Artificial Intelligence is becoming very popular in industry. Many large enterprises are making profit using AI. Business uses AI to find solution for their existing inefficiency, start-ups can also take advantage of AI to minimize in efficiency or problems. But many start-ups think implementing AI is tedious process and also it costs huge money. In this study, we are going to analyse problems faced by start-ups and also how to implement AI in your start-up, which AI tools and platform can be integrated in AI to help start-ups grow.

**Keywords:** Reason of start-up fails AI tools and platform, implementation of AI in start-up.

### 1. INTRODUCTION

In recent years, startups have been receiving attention in the many parts of world. In India also startups have been receiving more attention. The Economic Survey 2021-22 showed that India become the 3<sup>rd</sup> largest startup ecosystem in the world after US and China. In 2021-22 Indian government has recognized over 14,000 new startups which was 733 in 2016-17. Also total 44 Indian startups turning unicorns in 2021. Unicorns are companies with over \$1 billion valuation. While 2021 was a glorious year for Indian startup but India has also seen downfall of startup. An IBM Institute study finds that 90% of Indian start-ups fail within the first five years of their inception. Almost 8 out of 10 start-ups fails every year because of lack of innovation, not adapting technology in start-ups, lack of research. According to media reports, 12,899 companies and start-ups were struck off from official records of 2021. Starting up is not easy business. However, technology like AI can help to boost the grow of start-ups.

Artificial Intelligence (AI) has become an incredibly popular in tech industry. Even some less experienced businesses are taking advantage of less advanced artificial intelligence (AI) tools to help make work more efficient. There are wide variety of applications of artificial intelligence are available that are simply one step away from implementation in start-ups and playing huge role in growing your business. In this study, we are going to analyse start-up situation in India, why most of Indian start-ups fails. What problem faced by start-up in India and how technology like Artificial Intelligence (AI) can help to boost the grow of Indian start-ups.

### SOME REASONS OF FAILURE OF INDIAN START-UPS

2021 was a great year for Indian start-up. India has become the 3<sup>rd</sup> largest ecosystem for start-up in the world. Over 44 Indian start-up turns unicorn in 2021. Despite being the 3<sup>rd</sup> largest start-up ecosystem in the world, the success rate of Indian start-up is very low. An IBM Institute study finds that 90% of Indian start-up fails within the first five years of their inception. There are many reasons for start-up failure, some of common reason are as follows:

- A. **Lack of Innovation:** Although India is said to have the third-largest start-up ecosystem, it doesn't have meta-level start-ups such as Google, Facebook. Most of Indian start-ups are just replicate of global start-up rather than creating unique start-up. According to survey, 77% of venture capitalists thinks that Indian start-up lack innovation or unique business model.
- B. **Product Market Fit:** A large number of start-ups fails because of simplest reason that their product design does not meet the customer requirements. A lot of times start-ups try to develop products quickly that have no demand or try to expand the market for product.
- C. **Ignoring Customers:** Quite frequently start-up founders have an excessive amount of to handle – funding, recruitments, typical control of the organisation, and more. Customers won't even function of their to-do lists. This is a massive problem, which marketers fail to realize and might thoroughly be the purpose why start-ups fail. When start-ups are dedicated to being customer-centric, their decision-making will become easy, their recognition receives narrowed down and their reputation will increase.

- D. **Not Adapting Technology** in Start-up and Not Following New Trends in Market: The biggest start-ups can made is not adapting technology in start-up. Most start-up think implementing technology is costly and it creates complexity in start-up. But it is not true, even using less advanced technology in start-ups can help to grow your start-up. Also, most start-ups fail to keeping with new trends in market that can cost to lose customers.

## 2. ARTIFICIAL INTELLIGENCE (AI) FOR START-UPS

In today's world Artificial Intelligence (AI) has become more than just a buzzword in the tech industry. It's the technology that all the businesses or large enterprises wants to implement in their businesses. AI has become an integral part of success of many modern tech companies, whether that's a large enterprise or a brand-new start-up. AI gives the best solution for existing business inefficiency and also the ability to logically self-learn to address similar problems in future. For start-ups, new improvements are making it easier to implement AI into your software program or cloud solution. Many traders or different investors have shown a great interest in AI research and development as well.

India is the world's third-biggest tech start-up ecosystem which, despite the pandemic, maintains to develop regularly at 8-10 percentage annually, especially in technology domain. The deep tech start-ups base in India has elevated at over 40 percentage CAGR during the last 4 years, with Artificial Intelligence (AI) and Internet of Things (IOT) accounting for two-thirds of all deep tech start-ups. AI these days is the go-to technology throughout all commercial enterprise verticals, with an ever-developing listing of AI use instances that exhibit how its powering up businesses. But to better understand the role of Artificial Intelligence in the business, lets first see some of popular myths around the subject which is not true, especially when it comes to implementation of AI in start-ups and small businesses.

- A. **AI Integration Is Tedious Process:**Artificial Intelligence was developed to assist businesses automate, scale and grow, to lessen complexities and streamline enterprise processes. When it involves implementation therefore, with the proper AI equipment in place, it's as easy as any new tech-integration can be.
- B. **Implementation of AI System in Business Requires Technical Skill:**AI technology is evolving and there are AI equipment and system already in region that could without difficulty be deployed, without technical knowledge. For example, usage of content tool for creating better market content and also using of app analytical tool for understanding user behaviour on your mobile app or website.
- C. **AI in Start-up is Expensive:** As an AI development company, we often hear some concerns about cost of implementation of AI in start-up. Let's clear that. When it comes to implementation of AI in big authorities or government entity, the project usually requires good sized economic investment. However, this isn't always the case for start-ups. There is numerous AI software program which can successfully carry out responsibilities in the case of custom improvements.

As much as the giants of the tech industry are using different application of AI to keep themselves ahead of the competition, start-ups can also use Artificial Intelligence to create opportunities for themselves and can avoid wasting little money they have. Let's see some types and functions of AI also AI tools that can leverage to start-up grow.

### AI TOOLS AND USES IN START-UPS

- 1) **For Analytics:**Data collection is one of the most boring part of analytics. Collecting, cleaning and analysing data are the activity that are ignored by start-ups because they simply don't have time for it. Hiring analysts at start-up or at the beginning of small business is costly also start-ups have plenty of issues at start to solve than putting data into spreadsheet. But start-up can collect the data using AI. Data gathering mechanisms like **sentiment analysis** or machine learning algorithm can track customer behaviour and also data about product to keep up with your competitor. Some AI tools for analytics:

**Mentionlytics:** It is an AI powered tool for monitoring mentions of your enterprise, your competitors and the industry.

**Tellius:** It analyses your facts and routinely makes smart discoveries, then you may ask it questions on the insights.**IBM Cognos:** It is cloud-primarily based tool that makes it less complicated to visualize, analyse, and share enterprise insight.

- 2) **Programmatic Advertising:**Using AI for programmatic marketing and marketing lets in your advertising marketing campaign to goal clients which can be predicted to be receptive for your message. This is made even less difficult through AI-primarily based totally structures like Facebook and Google. By taking benefit of Artificial Intelligence, your enterprise can benefit publicity to the proper audience while not having to hire a whole marketing department.

**OptinMonster:** It is an AI-powered conversion optimization tool that allows you to send personalized messages to your user and also allows you conduct A/B testing on your ideas and more.

- 3) **Predictive Analytics for Recommendation:**Just like many online shops make product hints to shoppers, start-ups can also forecast the need of their customer and make suggestions using machine learning. There are numerous platform available to generate applicable hints; this will covert informal clients or upsell loyal customers.

**Analyticy:** It is a platform that could do precisely this via AI-driven recommendation on your Shopify ecommerce webpage that analyse over time. They are nearby start-up organization mentored via way of means of the altitude accelerator and their platform is straightforward to apply even though you are not data scientist.

- 4) **Virtual Assistant Services:**Although it's already been stated that you won't be capable of have enough money to have robotic assistance in daily tasks. But there are still some Artificial Intelligence tool that can provide human like assistance to help you in daily task that could be forgotten about.

**X.ai:** Using this you can cc a virtual non-public assistant on your emails and they may schedule a meeting with whoever you're speaking to.

**FirstAgenda:** It facilitates file assembly minutes and identify key phrases so that you can easily undergo a recording of assembly later.

**Atomic Reach:** You can actually have content material to your internet site written and optimized using this. Also, it provides key phrases and sentences on your content material as a way to get greater of an emotional reaction from customers.

### **BUILD YOUR OWN AI WOTH OPEN-SOURCE PLATFORMS**

In the off hazard that the inefficiency you have recognized does not have an identical AI solution, then you should go for building your own AI program. This may even a choice if you are technically professional and you just want perfect solutions that suits your start-ups. However, growing your own personal AI manifestly cost a time and money. But for this also there are open-source platforms available for creating your own AI program so that you can lower your cost.

Some platforms are:

- Lobe: Makes use of easy visible mechanism to build, train, and enforce a version that works with visible or audio records.
- Google's Cloud AutoML: Allows users to conduct custom machine learning according to their needs, capable of working with images, natural language, and structured data.
- Data Robot: Users can create their own predictive models for data in minutes.

### **KEY STEPS TO USE AI FOR START-UPS**

Implementing AI is not easy to implement. It requires everyone involvement on board and a lot of trial-and-error before things have to be optimized.

- Identify a Process:** At first step find which process could benefit your start-up by implementing AI. Think about all the inefficiency you face in daily operations.
- Show the Value of AI Tools:** The process will you chose make sure it will benefit you, this will make other employee and stakeholder see value in investment in AI. Find way to measure, predict financial and overall business impacts of AI.
- Run a pilot project to test AI tools:** Run a small pilot project to make sure AI solution is working properly. This will ensure you have the right data in place for long-term scalable project.
- Start Small and Slowly:** Implementing AI requires lot of experimentation. So, make sure implement only needed AI tools. Implementing a lengthy collection of AI solutions at once lead to more difficulty since it difficult to keep track on what's working and what's not.

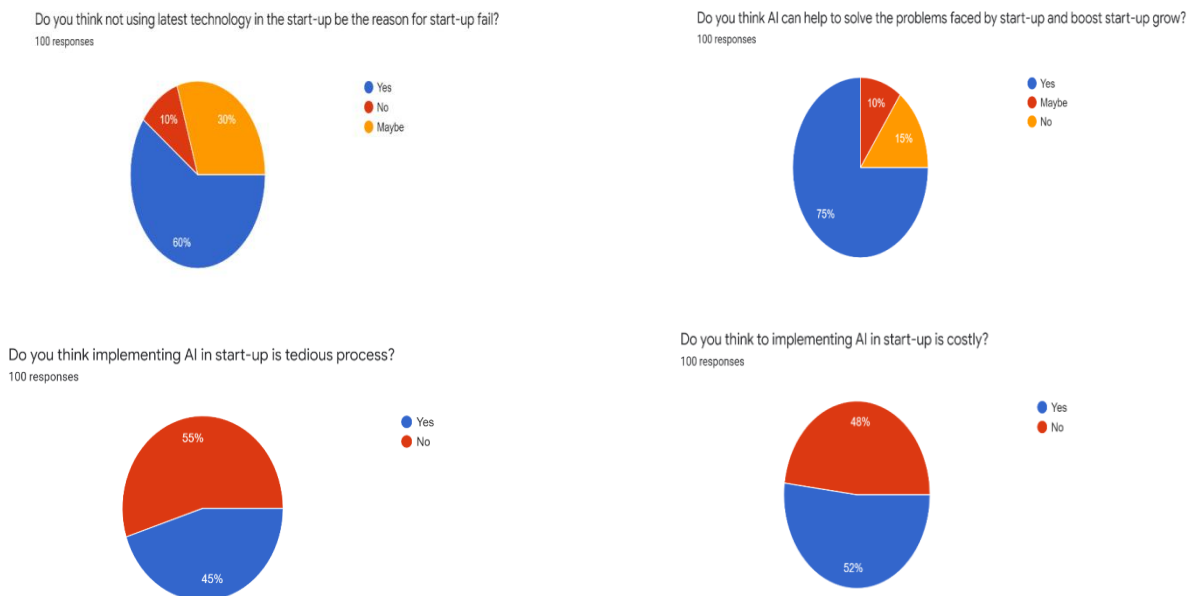
## **3. RESEARCH METHDOLOGY**

### **HYBRID MODEL**

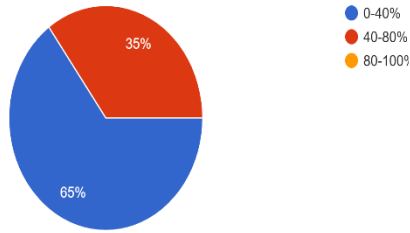
A model may include both descriptive and analytical components. A descriptive model's logical relationships can be examined, and conclusions can be drawn to reason about the system. Nonetheless, logical analysis yields quite different conclusions than a quantitative chemical investigation of system properties.

We first conducted a poll of people utilizing an online form creator and data collection service to acquire information regarding people's awareness.

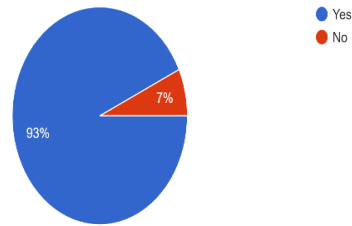
### **SURVEY RESULTS**



How much do you know about AI tool that can use in start-ups?  
100 responses



If you decide to start a company, will you ever implement AI in your business?  
100 responses



**HYPOTHESIS TESTING**

Hypothesis testing is a sort of statistical reasoning that includes analyzing data from a sample to derive inferences about a population parameter or probability distribution. First, a hypothesis is created regarding the parameter or distribution. This is known as the null hypothesis, abbreviated as H0. After that, an alternative hypothesis (denoted Ha) is defined, which is the polar opposite of the null hypothesis. Using sample data, the hypothesis-testing technique determines whether or not H0 may be rejected. The statistical conclusion is that the alternative hypothesis Ha is true if H0 is rejected.

For this paper,

Null hypothesis (H0): AI implementation will not help start-ups and it is difficult to implement.

Alternative hypothesis (Ha): AI implementation will definitely help start-ups and it is not that much difficult to implement.

**TEST (STATISTICS)**

There are 3 tests available to determine if null hypothesis is to be rejected or not. They are:

- A. Chi-squared test
- B. T-student test (T-test)
- C. Fisher’s Z test.

For this paper, we will be using a 2 tailed T-student test.

A t-test is an inferential statistic that determine if there is a significant difference in the means of two groups that are related in some manner.

- **Level Of Significance:** The chance of rejecting the null hypothesis when it is true is the significance level (also known as alpha or  $\alpha$ ). A significance level of 0.05, for example, means there’s a 5% probability of discovering a difference when there isn’t one. Lower significance level indicates that more evidence is required to reject the null hypothesis.
- **Level of confidence:** The confidence level indicates that probability that the location of a statistical parameters (such as the arithmetic mean) measured in a sample survey is also true for the entire population.

Sr. No.	Data
1	60
2	75
3	55
4	52
5	65

6	93
Mean (x)	66.6666667
Standard Deviation (s)	15.2402975

Level of Significance = 0.05 i.e., 5%

Level of Confidence = 95%

A t-score (t-value) is the number of standard deviations away from the t-mean. distribution.

The formula to find t-score is:

$$t = (x - \mu) / (s / \sqrt{n})$$

where x is the sample mean,

$\mu$  is the hypothesized mean,

s is the sample standard deviation,

and n is the sample size.

The p-value, also known as the probability value, indicates how probable your data is to have happened under the null hypothesis. Once we know the value of t, we can find the corresponding p-value. If the p-value is less than some alpha level (common choices are .01, .05, and .10) then we can reject the null hypothesis and conclude that smart devices are not secure and cannot be trusted with our privacy.

Calculating t-value:

*Step 1:* Determine what the null and alternative hypotheses are.

Null hypothesis (H0): AI implementation will not help start-ups and it is difficult to implement.

Alternative hypothesis (Ha): AI implementation will definitely help start-ups and it is not that much difficult to implement.

*Step 2:* Find the test statistic.

In this case, the hypothesized mean value is considered 0.

$$t = (x - \mu) / (s / \sqrt{n}) = (66.67 - 0) / (15.24 / \sqrt{6})$$

$$= 10.7155$$

**t-value = 10.7155**

*Step 3:* Calculate the test statistic's p-value.

The t-Distribution table with n-1 degrees of freedom is used to calculate the p-value. In this paper, the sample size is n=6, so n-1= 5.

By plugging the observed value in the calculator, it returns p-value. In this case the p-value returned is less than 0.0001.

Since this p-value is less than our chosen alpha level of 0.05, we can reject the null hypothesis. Thus, we have sufficient evidence to say that AI implementation will definitely help start-ups and it is not that much difficult to implement.

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#### 4. CONCLUSION

Even if India has become the 3<sup>rd</sup> largest ecosystem for start-up in the world, the success rate of start-up is very low. An IBM institute study showed that 90% of Indian start-ups fails within the five years of inception. There can be many reasons for start-up fail like lack of funds, lack of agility, leadership gap but there some main common reasons in every failed start-up like lack of innovation, ignoring customer needs, not integrating technology with start-up. Start-ups have to face many problems at starting but those problems can be tackled by using Artificial Intelligence (AI). Artificial Intelligence has now been breaking all the boundaries in tech industry. Many big enterprises, modern tech company is giving more importance to AI and now has been integrating AI with business to take out best solution of their existing inefficiency in business. Start-ups can also take advantage of AI to grow their business. But most Indian start-up thinks implementing AI in start-up is very hard and also costly at same time, this is because of lack of research and not having proper knowledge about existing technology. This study has proven that implementing or integrating Artificial Intelligence in start-ups is not tedious process and also it does not cost much money. There are numerous AI tools and platform available that

make easy to implement AI into your business and also entrepreneur can build their own AI platform for their start-up using AI tools. Recent survey showed that more than 91% top businesses have invested in AI and 61% of employee said AI have improved their work productivity. Its clear that implementing AI can leverage your business to grow. Even if you implement less advanced AI tools in your start-ups it will definitely benefit for your start-ups.

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