

# Challenges faced by a Product based Startup and how they can be Overcome?

Bhavook Chitkara, Syed Mohd Jamal Mahmood

**Abstract:** *In the last five years, India has become a land of startups. It stands third in the world. It has given lot of employment to the youth, but the bitter truth is that 90% of startups get failed. There always remain the collective contribution of founders, employees and investors in a product based startup. A lot of study on the failure of operations, marketing, sales, and delivery has been already done but very less work has been done on the study of the failure of product development. This paper explores the crucial product development parameters that can lead to the failure of the product based startup/organisation.*

*The evolution cycle of a product based startup can be considered in three stages:*

- Starting Phase
- Stability Phase
- Growth Phase

*Symptoms which can occur in the above three phases were discussed and the issues which appear were analysed.*

**Keywords:** *Startups, product based startup, startup failure.*

## I. INTRODUCTION

The concept of startups or the whole idea is more of a new venture. It in general, creates more employment by incorporating innovative ideas as well as replicable models from the past. They're capable of achieving great growth with exclusive cash-flow. For instance, if you see the growth graph of India of the last five years, the nation has approved the tremendous achievement with technology based startups success stories. Software product startups are the startups which get maximum number of fundings. If right product is designed and developed then that company can give good returns in the long period of time. But the bitter truth is that 90% of startups get failed. The stages of a startups company is split into three parts- Starting Phase, Stability Phase and Growth Phase. The Product development issues of each phase have been examined which usually leads to the failure of the startup/organisation. The symptoms of these issues are reviewed and analysed and possible required solution is provided.

## II. STARTINGPHASE

The first phase of any product based startup can be considered as the Starting Phase and this is the phase between product designing and first sale of the product.

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\* Correspondence Author

**Bhavook Chitkara**, Research Scholar, School of Management, GD Goenka University, Sohna Road, Gurugram, Haryana, India.

**Dr. Syed Mohd Jamal Mahmood**, Assistant Professor, School of Management, GD Goenka University, Sohna Road, Gurugram, Haryana, India.

There always remain a vision and idea behind every product based startup. The entrepreneur who came with a unique idea and plan to implement that to give a form of product analyse the market opportunities and plan which technology can be best suited for that to fulfil the requirement. It usually starts with a small space and with a few numbers of resources. The money always remains a concern until they get any funding from the investors. These entrepreneurs themselves know the coding, They themselves handle the account and HR. They usually hire the developers and designers who all work in a small room with very high spirits. Few are some of the issues related to the Development and Executive team respectively.

### 2.1 Less Experienced Designers and Developers:

**Symptoms:** Developers worked very hard in writing the code but unfortunately, the product delivery timelines rarely meet. There always remain issue with the proper QA(Quality Analysis) of the functionality, in fact, during the final delivery of the product, some of the required functionality doesn't work. It has also been noticed that when they try to fix any pending functionality/bug or when ever try to add new functionality the older code gets affected. They take more time to fix the bugs and also creates other defects while fixing the one.

**Analysis:** The above issue occurs due to lack of funds, they do not hire proper QA Team, who could do the Manual and Automation testing of the product thoroughly, So that the product could be delivered bug free and flawless. Also mostly they hire less experienced developers who take less salary as compared to the experienced one but their code doesn't fulfil the required criteria and also they take more time to complete one module, due to which the delivery of the product gets affected.

**Solution:** The lead developer of the company must be highly experienced, who had worked on multiple products and projects in the past so that it would be expected that he would be familiar with all the possible bugs. He must also have good leadership qualities who can motivate and get the code done with the relatively less experienced team. In-fact the Junior Team Lead should be experienced one so that he could manage the code and work in the absence of the Team Lead.

### 2.2 Usability of Product

**Symptoms:** Whenever a product is designed and developed for a specific client, it is coded and delivered as per the requirement of the client but it has been noticed that if that customer wants to upgrade that

product in the coming future then they have to write the complete code again which always proved time-consuming and expensive. In-fact if any other client wants another version of that development then that can't be used.

**Analysis:** It has been noticed that the product couldn't be developed in such a way that it can be shifted to a new version. When an existing client wants to shift it to a new version then a special team has to be deployed to make the appropriate changes, in fact for the service support and documentations a special team is required. The same developers are used to give support and do the documentation who developed the product.

**Solution:** The Product should be designed in such a way that the same product can be sold to other clients by making its new versions. In Fact there should be different support teams and separate documentation teams for the handover of the product.

### 2.3 No Owner of the Product:

**Symptoms:** No one knows who would have the authority to decide which functionality would be part of the product. If any challenges occur in any of the functionality who would take a call on that. The little authority remains in the hands of a dysfunctional committee.

**Analysis:** A Tiger is a cat designed by a dysfunctional committee. [2] suggests that if a great product is required then the product should be handled by the small group of same-minded people. There should be proper coordination between the group of developers and the founded entrepreneurs. If inputs from external different sources come into the picture for the feature selection then it doesn't move for a longer period of time.

**Solution:** There should be a proper team that consists of a couple of individuals from the client and a couple of individuals from the development team. So that proper decisions could be taken at the right time. Chaos could be avoided and the final product could be delivered on time.

### 2.4: Lack of Strategic plans

**Symptoms:** It has been noticed that organisations do not define the objectives and goals of the product development in their business plans. The important decisions are taken by the client/product owner only. These decisions are taken on adhoc basis result of which they could not relate them to a greater strategic plan.

**Analysis:** Product development takes a longer time to complete and so the profit collection. People keep going and coming on that journey. Proper strategy plans are required to plan and implement so that limited cash reserves be used in the best possible way.

**Solution:** There should be proper strategic plans[4] in all the product development organisations. Long term as well as short term[5] objectives should be properly defined. It also needs to make sure that the organisation's development should be in sync with the defined strategic plans.

## III. STABILITY PHASE:

This stability phase starts when the product is successfully handover to the first client. It ends when the product becomes stable enough to be delivered to another client without causing any overhead on the further development. In this stage, the product starts delivering to the multiple clients/users. Better Tech support is required in this phase. The entrepreneur plans to reach to the investors to get the funding for the further development of the product and to take it to a higher level. Unresolved matters of the Starting Phase should not be carried forward in this Stability Phase also need to make sure that no new issues could emerge.

### 3.1 Confusion in the Founders

**Symptoms:** In the second phase as new fundings come in, new executives become the part of the organisation. The conflict occurs between the original founders and the new joined executives. Though new leaders joined the organisation but the older employees keep their bend towards the founders of the product and they expect them to guide and provide further directions.

**Analysis:** It is needed that the clear roles must be identified and finalised for all the founders, An Army can't have two army chief. In case if the founders were not interested to play the role of subordinates then for sure there will be tension and tussle in the management which will affect the atmosphere and output of the organisation. As the funding comes in the play the changes in the CEO, VP and other Top managerial positions take place and it emotionally affects the founders of the organisation.

**Solution:** When new executives come on Role then the role of the founders needs to be well defined in advance itself[8]. They could be given the role of mainstream Executives or can be asked to join the board of non-executive directors.

### 3.2 Tension in atmosphere on the production teams' floor

**Symptoms:** The new joined experienced developer find the tough time in adjusting themselves with the older developers. Older developers who are part of the organisation from the longer time demand special treatment which is not relevant to their skills and experience.

**Analyse:** In the starting phase of the organisation, relatively less experienced developers were hired, but with time they getting older in the organisation, in the stability Phase when new experienced developers were hired at the senior positions, the older developers could not find comfortable as they were supposed to work under the new joinees (who joined at the senior position). The management team has to make sure that new experienced developers could sync with the older employees of the organisation. In fact some find it difficult to work under the joinees and they put the resignations.

**Solution:** It is needed that older developers who showed good leadership and technical skills in the past in the organisation should be promoted. If in any

case, any wrong hiring takes place that need to be fired as soon as possible. Outstanding performance should be promoted on the basis of people's strength[6]. The void space must be filled with the best available resource available in the market.

### 3.3 Unreliable Product

**Symptoms:** Any bug in the product causes the critical customer issues and those should be resolved with the best care under the supervision of an experienced developer. Usually, the development of new features takes time to code and develop.

**Analysis:** This is caused due to the inexperienced developers or by the delivery of an unready product. If any bugs come then inexperienced could not fix them on time, they take much time to resolve them. In the hurry of delivery of the unready product on a fixed delivery date cause the problem as unready and flawless functionality of the product affect the reputation of the organisation.

**Solution:** Fixing of a large number of flawless functionality and other bugs takes time and hard work to fix. The need to be fixed carefully with the usage of the best management. The experienced resources[10] must be hired permanently or on a contract basis who could fix the bugs effectively.

## IV. GROWTH PHASE

In the beginning of Growth phase one can commission the product for a fresh client without needing to create any pressure on the development team. In the end, after the success and establishment of market size, share and growth rate, each business practice is done to make sure that product development and sales targets are met.

During this phase, the brand gets more attention than ever and the market will see a blueprint for future product development. Also, trade sale or ITO come into the picture during this phase only, if required.

Now let's discuss the issues that can drastically affect the company's capability of product development.

### 4.1 Lack Of Skills Delays Development

**Symptoms:** Product development is a process that can be undertaken by a handful of talented people who behave as a bottleneck during the process. Since the set of skills and knowledge that they possess are unavailable in the marketplace, there is no chance to build these skills in new joining.

**Analysis:** The employees who had served the company for years or since the beginning of the startup, develop a broader skill-set even on ad-hoc. These skilled, experienced individuals hold the capability to become team heads down the road with the growth of development. This is how they will help develop the required skills in the new recruits when they get a chance. Else just the most socially active and determined new employees will get a chance to acquire the essential skill-set and grow rapidly.

**Solution:** Analyse and notice the critical skills and identify individuals who have it[9]. Pass on this knowledge to the entire team by utilising the approaches like shadowing, documentation, buddy programming and lunchtime seminars etc. Make sure that the duration for learnings and transfer of skills falls into the development phase. Identify who is teaching and who is learning.

### 4.2 Platform Creep Slows Down Development

**Symptoms:** The need of the product is on several platforms but has an indefinite cost justification. Resources and workforce expenditure increases during the product development phase but doesn't escalate features productivity. Moreover, several other parts of the business are probably not ready to support the updated blends of platforms.

**Analysis:** When a product is provided with an extra platform combination, it escalates the count and time of permutation required for testing. It can even increase by a factor of ten, in some cases. Thus, the possible result for every other platform combination that's new/fresh has to be offset against an extra cost in the development phase of products.

**Solution:** The most suited solution for this problem is to build a business case before including the other, added platform components in the product development. Make sure the entire expenditure falls under the budget made for the requisite resources for development, inside and out.

### 4.3 An Aimless Product Strategy

**Symptoms:** Businesses would not be able to fulfil the future product development demands. It can get confusing and mundane with tiny product improvements. Several ideas for new products can be handy, but no feasible way to decide on resources assignment.

**Analysis:** Several product businesses are unable to take their first achievement any further or increase or even maintain the availability of new products. To solve this problem, the startups will have to come up with new product ideas in sync with the strategy and product pipeline. Businesses can do this with the existing product platforms, teams and skill-sets. And as we all know that one has to be inspired and self-driven to make wonders, the companies must combine all these ideas, skills and resources with a potent product planning or strategy. An appealing product pathway is the secret ingredient to bring business value in an IPO or trade sale.

**Solution:** Bring resources to the table for help keeping up with the development plan of new products. The pipeline must involve the projected revenues as well as estimated price for development of the products. All areas of the startup ought to support product proposals, and planning incorporating the budget, total earnings, net profit, costing, risks factors and problems faced by the company. Development resources might also be required for resolving critical technology hurdles before the business develops a solid, fool-proof planning.



## 4.4 Weak Product Introduction

**Symptoms:** While introducing a new line of product or its idea, it can take a long time. This is since the actions take place in series instead of being processed in parallel or in coordination. During this time, the teams are constantly trying to delay the improvement and it eventually leads to more time.

**Analysis:** As the organisation develops, new item presentation requires a planned program of exercises crosswise over utilitarian zones including item advancement, proficient administrations, backing, deals and promoting. This program ought to be controlled by the item proprietor, upheld by a program supervisor.

**Solution:** Create a powerful procedure for new item presentation which the company can use further on repeat. Run a changed program to implant it in the organisation. Include all partners completely and include exercises that can be done in parallel and assets that can be made accessible in an opportune manner.

## V. MATURITY PHASE

The Maturity is the phase of development where the organisation has developed from a startup into a develop association. Market size, offer and development rate have been built up. All procedures important to help item improvement and deals are set up.

Product advancement contains a various group of multi-talented people, maybe remembering authorities for structure, improvement, testing, setup the board. quality affirmation, documentation and user interface design. Every individual knows how their actions helps the business strategy while showcasing the personal objectives related to that plan.

The business has a product which is doing well in the market and meeting the needs of customers, it will surely evolve through its experiences and processes. The product is a result of a technology platform that is potent or could produce the idea for other products for all kinds of markets, not necessarily the similar one. Timely investment in new product study has lead to the idea and invention of new products attracting more investment and elevating brand's value overall.

Product development is a potent and predictable process dedicated to the invention of new products along with their development and introduction. An extensive range of customers can use the product to offer their input to business' future development. These development processes are enough to fulfil more than ten lakh quality standards without requiring a certification. Resources like Capability Maturity Model can be utilised to further enhance the Product Development Process [7].

## VI. CONCLUSION

Early acknowledgment and the executives of basic issues, for example, those distinguished in this paper can expand the odds of achievement for a product startup.

Fruitful advancement of new programming items is a key esteem driver for a few new businesses. An organisation which can show that it has created at least one fruitful product in a commercial centre, and has the vision, and capacity to deliver more can expect an exchange deal at a decent valuation. Initial public offering might be conceivable if different areas and strategies of the process are powerful. The author welcomes the comments, inputs and experiences of startups who want to share.

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