

Start-up Patterns: A Pattern Language for Realizing Fascinating Future with Nurturing Team and Community

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Abstract

In this paper, we present the Start-up Patterns: A pattern language for supporting start-up entrepreneurs who struggle through many difficulties and attempt to achieve overwhelming growth. This pattern language scopes not only patterns for quickly developing a product, delivering it to a wide audience, and growing a business, but also patterns for more implicit difficulties that entrepreneurs themselves must face. This pattern language is based on dialogical mining of 16 entrepreneurs in a Japanese startup community where none of the participating companies have gone out of business. This study focused on interviews with Japanese start-ups with the aim of being able to use this pattern language in a Japanese business environment. In addition, the companies are from a variety of business domains and business models. This pattern language consists of three categories and each category has 9 patterns, for a total of 27 patterns. In this paper, we cover six patterns from the “Unparalleled Strength” category: *Catch the Star*, *My Strengths*, *Increase Clarity*, *With Different Experts*, *Rough Basics*, *External Collaborators*.

1. Introduction

A start-up company is a way for a company to create a scalable business model, while the entrepreneur repeats many trial and errors. Usually, many of them go out of business within a few years because they have to overcome a series of unpredictable problems, especially in the early stage of business when there are not enough funds or human resources. However, some of them have achieved great results and have brought new and attractive services and products to the world. There are many reasons why startups go bankrupt early, but the fundamental common factor is that they do not have a business model that generates stable cash and are very vulnerable to changes in the environment surrounding the company. Thus, making unreasonable upfront investments or taking too long to launch a product can leave a company with no funds.

Start-up entrepreneurs face a variety of problems as they grow their businesses, and often tackle things outside of their area of expertise. They have to do everything from finance, product development, marketing, human resources, and negotiations with shareholders. In Japan, there are several communities where executives of start-up companies gather and learn from each other. This research will focus on Chiba Dojo, one of the entrepreneurial communities in Japan, to extract important practices in managing start-up companies. The community holds biannual training camps and regular study sessions where entrepreneurs discuss crucial topics in business development, sharing their own experiences and having guest speakers who specialize in the topic. A significant point of this community is that none of the participating companies have gone out of business, despite the fact that most startups in Japan go bankrupt within five years. We interviewed 16 entrepreneurs

participating in the Chiba Dojo, and they were of course very thorough about what has been mentioned in many books and theories of Lean Startup and other know-how about entrepreneurship and business development, such as develop only the minimum number of features needed, to test hypotheses quickly, and to raise funds according to company's capabilities.

Participating companies have a variety of business domains, including SaaS, sharing platforms, HR platforms, travel, custom-made clothing, and more. They also have a group called the Drone Fund, which specializes in the drone business. There are also a variety of business entities, including BtoB, CtoC, and BtoC.

The "Startup Patterns" introduced in this paper are a collection of important aspects of startup management practiced by entrepreneurs participating in the Chiba Dojo in the form of a pattern language. After explaining the purpose of this study in Section 2, in Section 3 six patterns from the "Unparalleled Strength" category of language are presented.

2. A Pattern Language for Entrepreneurs to Overcome the Difficulties with Managing Start-ups

The pattern language presented in this paper describes how to overcome the difficulties inherent in startup management and create things that have never existed before. There are several pattern languages for startups to grow [Dande] [Eloranta] [Cukier], and they are specific to quickly developing an attractive product, delivering it to users, running an improvement cycle, where to get funding, and how to get ideas. The pattern language presented by Dande is specialized in software start-up and covers a wide range of topics such as funding, product development, organizational management, marketing, and technology that are necessary to build a business. Patterns introduced by Eloranta are focused on product development and the work of Cukier reinforced that.

On the other hand, the actual CEOs of a start-up need to face many other issues. In the beginning of *HARD THINGS* by Ben Horowitz, it says that.

“Every time I read a management or self-help book, I find myself saying: -That’s fine, but that wasn’t really the hard thing about the situation-. The hard thing isn’t setting a big, hairy, audacious goal. The hard thing is laying people off when you miss the big goal. The hard thing isn’t hiring great people. The hard thing is when those “great people” develop a sense of entitlement and start demanding unreasonable things. The hard thing isn’t setting up an organizational chart. The hard thing is getting people to communicate within the organization that you just designed. The hard thing isn’t dreaming big. The hard thing is waking up in the middle of the night in a cold sweat when the dream turns into a nightmare.

Nonetheless, there are many bits of advice and experience that can help with the hard things.

I do not attempt to present a formula in this book. Instead, I present my story and the difficulties that I have faced. As an entrepreneur, a CEO, and now as a venture capitalist, I still find these lessons useful—especially as I work with a new generation of founder-CEOs. Building a company inevitably leads to tough times. I’ve been there; I’ve done that. Circumstances may differ, but the deeper patterns and the lessons keep resonating.” (Horowitz, p.6)

As you can see from this passage, there is so much more for entrepreneurs to deal with other than to raise funds, create an attractive product, acquire a large number of customers through marketing, and build an organization that can expand the business, in order to run a startup successfully. Entrepreneurs must endure mental anguish, relationships, and pressure from the people around him or her. The results of this research are in the form of a pattern language that describes how to overcome the various difficulties that entrepreneurs themselves must continue to face in managing start-ups. Our main readers are the entrepreneurs themselves, but the pattern language is also useful for the surrounding CXOs, core members of management, and people who are thinking of starting their own business.

In addition, there are still few studies that take a holistic approach to startup management practice in the Japanese environment, which are still insufficient for putting it into practice. Most of the studies or books for Japanese start-ups had been brought from the U.S., which are not necessarily adaptable to the Japanese environment. Therefore, we selected the subjects of this study as entrepreneurs who founded a startup company in Japan.

The "Startup Patterns" presented in this paper are the result of 30 hours of dialogue mining with 16 entrepreneurs to articulate their practices in the form of pattern language, while following the Iba style pattern language creation method [Iba & Isaku]. These interviewees are participating in the Chiba Dojo, and have overcome many hard things and are still facing them. The entrepreneurs we interviewed are involved in a wide range of business areas, including office sharing, IoT devices, drones, HR platform, SaaS, custom-made clothing, language learning, pharmaceutical e-commerce, ride share service, AI image recognition, fintech, cybersecurity, accommodation booking, healthcare, professional human resource business matching service, and Japanese pop culture entertainment. The companies are at different stages of development: some are already listed, some have completed the development phase of their products and are making significant sales, and some need to develop their products, and have only a few customers. All of these companies have been in business for more than three years.

3. Patterns

The start-up patterns presented in this paper consist of 27 patterns and they are categorised into three categories: "Unparalleled Strength", "Actualizing with Speed", and "Incessant Growth". As shown in figure 1, there are three groups in each category, and each group contains three patterns. The patterns that we present in paper belong in the groups colored with grey. Each pattern is not completely independent of the others, but is interrelated across categories and groups. Some patterns are complementary to each other, such that what one needs to be aware of when practicing one pattern can be solved by another pattern. The relationship between the patterns presented in this paper and other patterns is explained in the Discussion: Inter-relation of each patterns section.

In this paper, we present 6 patterns from *Establishing a Powerful Vision* category: "Catch the Star", "My Strengths", "Increase Clarity", and *Building a Tough Team* group, "With Different Experts", "Rough Basics", "External Collaborators". These 6 patterns provide a strong driving force for the management of startups, and contain elements that are important for building a foundation, vision and team to overcome various hard things.

Each pattern is organized in a common format and contains the following information: Pattern number, Category, Group, Pattern Name, Introduction, Context, Problem, Force, Solution, Action, Consequences.

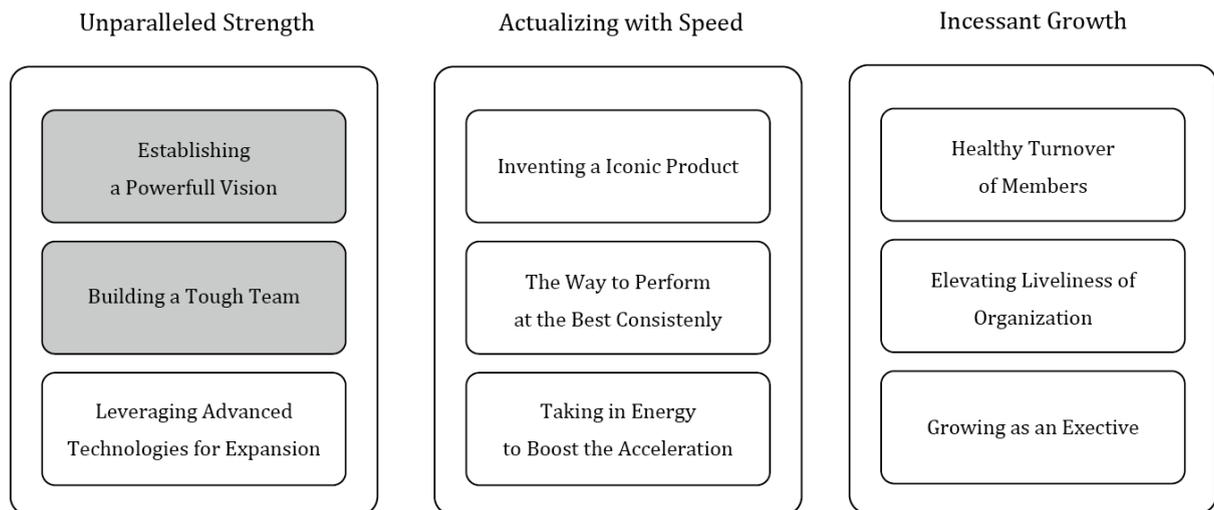


Figure1. Categories and Groups of Start-up Patterns

3.1 No1. Catch the Star

Establishing a Powerful Vision

Catch the Star

Aim for the height of the stars
rather than the top of the mountain.

You are envisioning the future we want to achieve.

▼ In this context

Thinking of a vision as an extension of what we can do will not lead us to a vision of the future that will fascinate others. When you are trying to think about the future that can be realized through your efforts, it is easy to think from the perspective of your current position. However, this makes it difficult to conceive of an ideal future that is discontinuous with the present because the current situation will affect your thoughts. If this is the case, the people around you will not be attracted to your vision, nor will they be willing to support and cooperate with you.

▼ Therefore

Embrace the ideal with an overwhelmingly high perspective, and imagine a future that inspires us and attracts many people. Imagine what kind of new era will arrive when you thoroughly pursue the solutions to the problems and the things you want to achieve. If the image of the future that emerges from this process is the one that you find truly appealing, set it as the future you are aiming for. Then, talk passionately about the attraction of that future to your colleagues and the people around you, and move forward strongly toward its realization.

▼ Consequently

By aiming for an ideal future that is as high as catching a star metaphorically, it starts an adventurous challenge to create an upbeat future that we have not yet seen. By aiming for an overwhelmingly high goal, it creates a power and inside strength within yourselves that you would not normally be able to generate. Moreover, the support and cooperation of those who share and expect such an attractive vision of the future will provide the upward momentum for the leap.

3.2 No2. My Strengths

Establishing a Powerful Vision

My Strengths

You will not be able to reach to overwhelming heights
without fully leveraging yourself.

You are thinking about what you want the future to be (the vision).

▼ In this context

It is impossible to realize an overwhelmingly high ideal future if there is no clue that only you can make it come true. That untouched path may have been conceived by no one, or it may have been considered by someone, but not developed because it was judged to be extremely difficult or impossible to realize. There is also the possibility that other companies will follow and overtake the path and company you have pioneered. Therefore, it would be too reckless to simply push forward without questioning the reasons why you are capable of achieving it or whether you are better suited than others.

▼ Therefore

Understand your strengths based on what you have done so far, what you are good at, and what you tend to focus on more than others, and create a vision by incorporating these strengths. Think about how the skills, experiences, expertise, and connections you have developed in your life and work. Then think how those can be used to realize the future you want. Also, consider how you can leverage the most of your skills and experience more effectively. Strengths here include not only professional skills, but also physical strength, ability to think out of the box, and friendliness. When you fully integrate all of these strengths, you should be able to realize your vision of the ideal future.

▼ Consequently

You can move forward with a vision that only you can achieve. A vision that is linked to your strengths will give you the confidence that it is only you, and nobody else, who can create the future. Also, you can work on it with a sense of attachment as it overlaps with your own life. Furthermore, the people around you will have expectations that you will be able to make it happen, and they could support and cooperate with you.

3.3 No3. Increase Clarity

Establishing a Powerful Vision

Increase Clarity

Details of an ideal future make the vision clear
and uncover the path you will take.

Visions of an ideal future began to emerge.

▼ In this context

If you only have a vague vision, it is difficult to realize the future you are aiming for, because it lacks the connection of what you are going to do to realize it. Visions are imaginations and fantasies of a future that does not yet exist, and at first they are very vague and ambiguous, or only certain aspects and parts are visible. Even with such a vision, you are still able to work toward the direction, but it will be difficult to realize the vision if it remains vague and ambiguous.

▼ Therefore

By concretizing the scale and timing in the future situation you are aiming for, you can think about what you need to do and when, and then fill in the details of your vision. For example, using tentative figures, think of how many users and how many organizations you are aiming to introduce the product or service you are developing. Also, by deciding specifically when to achieve those figures, you can back-cast from there and figure out what kind of condition we need to be in by that time.

▼ Consequently

As the vision becomes clearer and more concrete, you will be able to know what to do and when to do it. In this way, the initially vague vision will be transformed into an effective concrete plan. Once this happens, we will be able to think about what kind of structure and approach we need to take, and you will also be able to feel the swiftness of realization and growth. As a result, even if the future is overwhelmingly ideal, it will not be a pie in the sky, but will open up the possibility of realization.

3.4 No.4 With Different Experts

Building Tough Team

With Different Experts

Team up with people who have
different professional skills and experience.

You are trying to gather partners to start up the company to realize the overwhelming vision.

▼ In this context

Even if you form a team with people who share your vision, if they have similar expertise, skills, and experience as you, they will not be able to fulfill the functions necessary to make the business work. In the start-up phase, a minimum number of people must cover several areas such as product development, finance, sales, and marketing. However, many people who share your vision have similar backgrounds and aspirations, and it is very likely that their expertise will overlap with yours. If you bring in such people, you will probably run into difficulties with managing your business, as you will become inadequate in one area or another.

▼ Therefore

By bringing in people who have outstanding expertise, skills, and experience in different fields than yours and who also share your vision, Build a tough team, even with a small number of people. If there are people you meet through your previous jobs or through introductions from people you trust, try to meet them in person, or attend pitch events to meet them and find others. The best people often already have a place to work, so instead of just talking about the return in terms of financial rewards and growth opportunities, explain passionately and firmly the reasons why the person is essential to realizing your vision for the ideal future.

▼ Consequently

By assembling a small team of people with their own specialties and strengths, we can create a core member of the organization. In such a team, each person will have a strong recognition that they are the one who is responsible for each field, and therefore, each person will be able to take the initiative and exert their power. This team will then become the engine for future growth, and will be able to carry the company forward without wavering.

3.5 No.5 Rough Basics

Building Tough Team

Rough Basics

The basic knowledge of each area of expertise becomes the foundation for communication.

You entrust each area of expertise to the members

▼ In this context

Even if the members are trustworthy, if they are left everything within the particular field, they may gradually deviate from your assumptions or become inconsistent as a whole organization. Since many things in a specialized area can only be understood by those who are experts in that area, it is often left to those who are knowledgeable in that field. However, if this is the case, it becomes impossible to discuss with them when there is a confusion in decision making or when a problem arises in their area of expertise. In addition, even if something is judged to be right or good from the

perspective of that area, there is a possibility that it may not fit with the overall goal or current situation.

▼Therefore

Knowing the basic words and concepts of each area of specialization will enable you to discuss and think together with them. By reading simple introductory books and attending introductory seminars, you can get a basic grasp of their field of expertise. You can also learn about recent trends and topics from magazines and TV specials. By listening to people who specialize in the field, you will be able to gain a deeper and more essential understanding. For each area, it is good to know three things: what the area is, what the current topics are, and what the issues are within the area.

▼Consequently

You will be able to participate in discussions about that area while letting the members take care of their area of expertise. In this way, you can discuss with them or think together with them about decisions in that area and how to deal with problems, if necessary. Each member will feel a sense of independence in their own area, but also a sense of security and trust that they are being understood.

3.5 No.5 External Collaborators

Building Tough Team

External Collaborators

Creating a larger ripple by establishing connections with people outside the company who share our vision.

You are working in your own way to create an upbeat future that we have yet to see.

▼In this context

Even if you have a team of members with great skills and experience, it is difficult to make a big impact or achieve something on a large scale if you just work hard on your own. In order to disseminate a new product widely, it is necessary to make it widely known and to reach customers. Also, when communicating the ideals and attractions, voicing problems that need to be solved, and realizing things that have not been done before, there are sometimes limits to what one organization or one's position can do.

▼Therefore

By connecting and collaborating with key persons who can be the starting point for new trends and organizations that can help with your initiatives, you can achieve things that you would not be able to do on your own. For example, you can connect with companies that have a widely distributed network. You can also collaborate with the government that has jurisdiction over laws and systems, and with people from other companies and organizations that are working on the same matter. Through these connections, you can work together to realize your ideal

future. When you are interacting with those people or organizations, you can establish trust by communicating the importance and necessity of the future you are trying to achieve. Also, through showing what you will undertake and what you want them to undertake, and what benefits there will be for both parties, you can build trust.

▼Consequently

As your efforts spread beyond your immediate community, you will be able to create a wave of change that will lead to a better society. As the number of collaborators and supporters increases, you will gain more credibility from society and it will become easier and easier to tackle the next challenge with other people involved. When your company is able to collaborate with the government and local communities to change laws and systems, you will be able to tackle things that you could not do before and on a larger scale.

4. Inter-relation of proposed patterns and other patterns

A strong pattern language includes holistic in a characteristic. It has a mutual reinforcing structure for each pattern, which makes language powerful through promoting better practice for practitioners. In Start-up Patterns, each pattern reinforces and complements each other. In this section, we will explain how each of the six patterns introduced in this paper relates to the other patterns within this pattern language.

First, Catch the Star. For this pattern there are three patterns that complement its possible side effects: *Fellow Entrepreneurs*, *Scale Reactive Structure*, and *Time with Distant Members*.

Once entrepreneurs have created a vision that they think is great, it is important to share it with others to get their reactions and refine the details and the way they deliver it. At this point, it is a good idea to talk to the *Fellow Entrepreneurs*. Rather than blindly discussing with people entrepreneurs think are good, they can talk to people who have similar experiences as a start-up entrepreneur to get a deeper conversation and more insightful advice.

Even if the vision itself is strong, as the company grows and the number of employees increases, each member's understanding of the vision may differ. This creates difficulty in working with a sense of unity. In such a case, it is a good idea to take time to discuss vision with long-time members and recently joined members as a *Scale Reactive Structure*.

Although members who come in with a strong empathy for the vision may find that there is a gap in the direction they want to pursue in terms of the future of themselves, as the company grows and/or as each member grows. When this happens, it is important to take *Time with Distant Members*, and to consider whether you can continue working together through reconciling entrepreneur's and member's opinions.

Next is My strengths. There are times when entrepreneurs have a vision that they want to achieve at all costs, but they don't have the skills, connections, or other strengths to tackle it. In such cases, gaining experience before taking on the challenge would be the solution. After the company has grown, entrepreneurs should set another target and try to tackle even bigger things through *Scale Reactive Structure*. In fact, serial entrepreneurs often aim for a higher goal with their business. In order to achieve this, it is important not only to improve your business management skills, but

also to build *Trust as a Person* and gather people who want to support you in taking on bigger challenges.

The last pattern for creating vision is Increase Clarity. In order to practice this pattern, entrepreneurs need to gather a variety of detailed information. On this occasion, entrepreneurs can obtain enough points to deepen their thinking and materials to think by going to talk directly to *Frontier Runner* as well as information available in books and on the Internet. To get an idea of whether the clarity is high enough, entrepreneurs may want to consult a *Financial Mentor*. Since funding requires a high level of clarity, it is better to check the clarity of vision and/or business plan with a mentor to see if entrepreneurs could get the fund. By talking to senior entrepreneurs and trusted investors, entrepreneurs can get an idea of which parts need to be worked out in more detail.

In order to start up a company *With Different Experts* as members of a founding team, it is important to meet and empathize with them. In order to achieve this, there are two patterns to support *With Different Experts: Make Luck* and *Rough Basics*.

Meeting people is partly based on luck. It will be difficult to meet the best partner if you just wait around. It is important to take the opportunities that come entrepreneurs' way without holding back. Associating with people considered as lucky and creating new encounters with *Make Luck*, which involves keeping entrepreneurs' words and actions positive, and to keep taking action to make luck.

In order to be able to talk *With Different Experts*, entrepreneurs need to have *Rough Basics*. There are not many people who would want to cooperate with someone who knows nothing about their domain of expertise. It is also necessary to have *Rough Basics* in order to determine whether or not the person entrepreneurs are bringing in has sufficient skills and experiences.

With a view to gain *Rough Basics*, it is important to read articles and books about the domain, but also to exchange information with people who have expertise about it. You can increase your knowledge by having many discussions with people who are *Frontier Runner*, *Financial Mentor*, *Fellow Entrepreneurs*.

In addition, *Acting on the Spot* is important when entrepreneurs get new information that they think is important. Even if it seems important at the time when they hear it, as time goes by, they may lose or forget what it means and what attracted them to it. Therefore, it is important to practice what you learn immediately or talk about it to someone else so that it stays longer on your mind and makes it easier to remember.

For expanding business, entrepreneurs need to make sure that the *External Collaborators* are the right people for them. It is true that there are devil investors who pretend to be angel investors and try to maximize their profit unfairly. In addition, experienced investors often have more information about financials and laws than entrepreneurs, and it can be very difficult to identify them. For the purpose of identifying them, we can ask experienced entrepreneurs or trusted investors to be *Financial Mentor*, and by listening to their perspective on the reputation of the people they are trying to bring on board, entrepreneurs can get the information entrepreneurs need to think about whether they will be a good match for them or not.

With the intention of increasing the number of *External Collaborators*, entrepreneurs need to build their own *Trust as a Person*. In order to build trust little by little, entrepreneurs could not only work hard to grow their business but also offer what entrepreneurs are working on recently and their thoughts about personal dreams and/or motive about their business. Consequently, even people who have never listened before may start engaging with entrepreneurs.

As illustrated in this section, each pattern reinforces the other mutually, and since Start-up Patterns have 27 patterns, all the relationships of patterns are not revealed yet, but we hope to clarify them through future research.

Conclusion

In this paper, we introduced 6 patterns in the "Unparalleled Strength" category from the start-up patterns. This category contains the patterns of how to create a powerful vision for a startup and gain the cooperation of others in order to boost the growth of a startup. The other two categories contain patterns of what is important to continue to produce high quality products and what is important to continue to grow sustainably, and these categories are closely related. We believe that this pattern language will become a common language in the community of startup executives and promote mutual learning through patterns. We would like to introduce its effects and remaining categories in a future paper.

Aknowledgement

We would like to express gratitude to all the executives who belong to the Chiba Dojo for allowing us to conduct the dialogical minings. We would also like to thank Yuta Tsukagoshi and Shoichiro Sakairi of Chiba Dojo for organizing this research project. We would also like to thank the members of this project, Ryusei Murasawa, Yuka Banno, Saki Ayai, Risa Yano, Kaito Shiota, Kanata Tanaka, Yuta Morofuji, Joe Yamauchi, and Lisa Natsume.

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