

# Start-Up Patterns

## A Pattern Language for Developing Enterprise to Create the Future

YUKI KAWABE, Graduate School of Media and Governance, Keio University

TAKASHI IBA, Faculty of Policy Management, Keio University

YUYA OKA, Graduate School of Media and Governance, Keio University

KOTARO CHIBA, Chiba Dojo

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This paper presents the Start-up Patterns for supporting start-up entrepreneurs who struggle through many difficulties and attempt to achieve a fascinating future. This pattern language covers establishing powerful vision, recruiting members, inventing unique products with cutting edge technology, developing scalable businesses, motivating members and entrepreneurs themselves, fund-raising, creating a healthy organization, and growing as an entrepreneur. We conducted a mining dialogue with 16 Japanese start-up CEOs to create this pattern language in this research. These companies belong to a start-up community called Chiba Dojo, where more than 80 companies are participating. Despite the fact most of the start-up companies fail within several years, none of the participating companies have gone out of business. In addition, the companies are from a variety of business domains and business models. This pattern language consists of three categories: UNPARALLELED STRENGTH, ACTUALIZING WITH SPEED and INCESSANT GROWTH, and each category has nine patterns, for a total of 27 patterns. This paper covers six patterns from the UNPARALLELED STRENGTH category: *Catch the Star, My Strengths, Increase Clarity, With Different Experts, Rough Basics, External Collaborators*.

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## 1. INTRODUCTION

A start-up company is a way to create a scalable business model, while the entrepreneur repeats many trials and errors. Usually, many of them go out of business within a few years because they have to overcome a series of unforeseen problems, especially in the early stage of business when there are not enough funds or human resources. However, some have achieved outstanding results and have brought new and attractive services and products to the world. There are many reasons why start-ups go bankrupt early. The fundamental common factor is that they do not have a business model that generates stable cash. The other is very vulnerable to changes in the environment surrounding the company, such as law amendment, natural or bio disasters. Under these circumstances, making unreasonable upfront investments or taking too long to launch a product can leave a company with no funds.

Start-up entrepreneurs face various problems as they grow their businesses and often tackle things outside of their area of expertise. They must 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 essential 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 noteworthy point of this community is that none of the participating companies have gone out of business, although most start-ups in Japan go bankrupt within several years. We interviewed 16 entrepreneurs participating in the Chiba Dojo. 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—for instance, developing only the minimum number of features needed, testing hypotheses quickly, and raising funds according to the company's capabilities.

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Author's address: T. Iba, 5322 Endo, Fujisawa-shi, Kanagawa 252-0882 Japan; email: iba@sfc.keio.ac.jp;

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

The Start-up Patterns introduced in this paper are a collection of essential aspects of start-up 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, an overview of this pattern language and six patterns in the full description from the Unparalleled Strength category are presented. In Section 4, interrelations with six patterns and some of the rests are discussed.

## 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 start-up management and create things that have never existed before. There are several pattern languages for start-ups to grow. They are specific to quickly develop an attractive product, delivering it to users, running an improvement cycle, getting funding, and how to get ideas (Dande, et al., 2014; Eloranta, 2014; Cukier, et al., 2016). The pattern language presented by Dande is specialized in software start-ups 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 adds patterns for early-stage start-ups. Changing perspectives from the previous studies, the CEOs of a start-up need to face many issues other than growing their business. In the beginning of *HARD THINGS* by Ben Horowitz, it says that Horowitz (2014):

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.

As stated in this passage, there is so much more for entrepreneurs than raising funds, creating an attractive product, acquiring many customers through marketing, and building an organization that can expand the business to run a start-up successfully. Entrepreneurs must endure mental anguish, relationships, and pressure from the people around them. Therefore, this study includes how to overcome the various difficulties that entrepreneurs themselves must continue to face in managing start-ups. Our primary readers are the entrepreneurs themselves, but the pattern language is also helpful for the surrounding CXOs, core members of management, and people who are thinking of starting their own business.

The Start-up Patterns presented in this paper result from 30 hours of mining dialogue with 16 Japanese entrepreneurs to articulate their practices in the form of pattern language while following the Iba style pattern language creation method (Iba, et al., 2016). These interviewees participating in the Chiba Dojo 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, rideshare 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 categorized 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. Each pattern is not entirely independent of the others but is interrelated across categories and groups. Some patterns complement 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 is explained in Section 4.

This section presents a summary of each pattern to show the whole picture of this pattern language. Then six patterns from Establishing a Powerful Vision group: *Catch the Star*, *My Strengths*, *Increase Clarity*, and Building a Tough Team group, *With Different Experts*, *Rough Basics*, *External Collaborators* are presented in a full description. These six patterns are contained within the groups colored with gray in Figure1.

Each pattern is organized in a common format and contains the following information: pattern name, introduction, context, problem, force, solution, action, consequence.

#### 3.1 Overviewing Entire Language

In this section, summaries of each pattern are shown in categories. Each includes a description of what to achieve in a category and nine patterns that belong.

##### 3.1.1 First Category, Unparalleled Strength

In order to create a company that can grow in a harsh environment, the company's foundation has to be strong. This requires a vision with a strong attraction for entrepreneurs themselves and others. With high ambition and a definite approach, creating the visions and telling them with enthusiasm is essential.

Realizing the strong vision and reaching the fascinating future requires a team with reliable members. To go beyond one's limits requires gathering and collaborating with members of different expertise than oneself. Collaborating with other stakeholders such as government administration and other companies is as important as striving toward the growth of the business. Doing this allows start-up companies to challenge more critical deals.

For realizing an fascinating future yet to see, it is essential to create leverage with technology by implementing cutting technology and technology that has never been used in the business field of entrepreneurs. When implementing new technology, contacting a developer is vital to get information that has not been published yet. Also, getting ideas from engineers inside the company is important for implementing technology in business. Hearing what kind of technology engineers would like to try or what they want to make could lead to combining a company's strong point to technology, which might create unique ideas for the company.

This is how entrepreneurs create strength with vision, team, and technology. Summaries of each pattern are shown in Table 1.

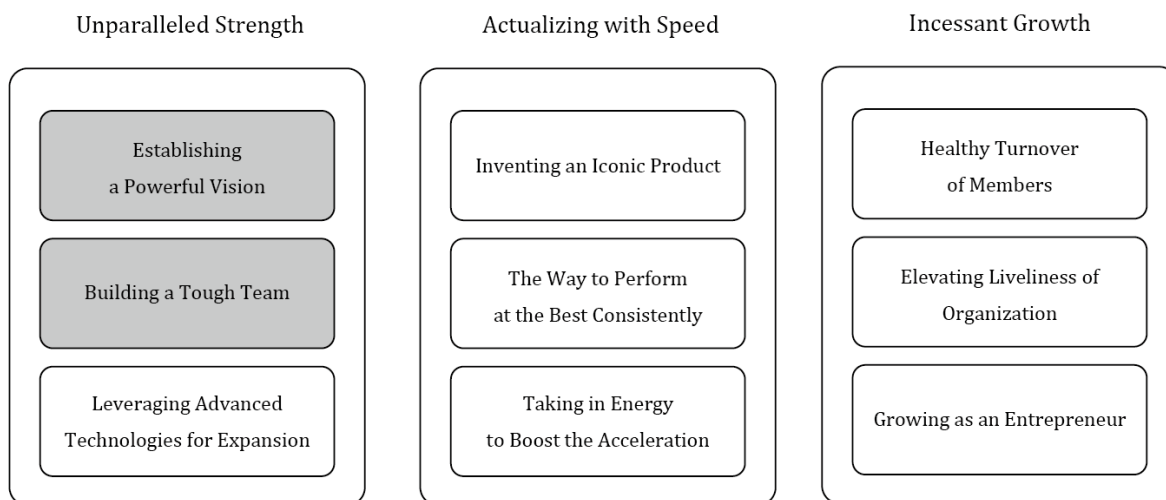


Fig. 1. Categories and groups of Start-up Patterns

Table 1: 9 patterns in Unparalleled Strength category

| Group Name                                     | Pattern Name           | Solution  |
|--|------------------------|---|
| Establishing a Powerful Vision                 | Catch the Star         | Embrace the ideal with an overwhelmingly high perspective and imagine a future that inspires us and attracts many people.   |
|  | Own Strengths          | 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.                        |
|  | Increase Clarity       | By concretizing the scale and timing in the future situation you are aiming for, you can fill in the details of your vision and think about what you need to do and when.                                       |
| Building a Tough Team                          | With Different Experts | 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.             |
|  | Rough Basics           | Knowing the basic words and concepts of each area of specialization will enable you to discuss and think together with them.  |
|  | External Collaborators | Create a connection and collaboration with key persons who can be the starting point for new trends and organizations that can help achieve your vision and challenge the things you cannot handle on your own. |
| Leveraging Advanced Technologies for Expansion | Untouched Technology   | Adopt cutting-edge technologies or technologies that have never been used in the business field of yours, then create your novel unique approach.   |
|  | Frontier Runner        | Catch up to the actual frontier that has not been published anywhere by discussing with people who are developing and pioneering the business field and the technology.   |
|  | Engineer's Idea        | Have engineering members talk about something they can do or what they would like to try from the engineering perspective and seek the potential of those ideas for the project with them.                      |

### 3.1.2 Second Category, Actualizing with Speed

The sense of speed that no other company cannot reach is necessary to have unparalleled growth. First, it is crucial to invent a unique and attractive product and enclose customers to increase regular customers. For realizing that, narrowing down where to allocate their resources, and creating an unrivaled difference is crucial. On top of that, hearing voices from regular customers can determine where and what to improve on a product. When considering a marketing strategy to deliver a product, it is important to evaluate the effect of the overall measures taken in a certain period, rather than the effect of individual measures that are difficult to evaluate, so that an appropriate combination of approaches can be implemented.

In order to keep others at bay, entrepreneurs need to sustain speed, not instantaneously, but like running a marathon at the speed of a sprint. For that, it is vital to have a very personal dream that an entrepreneur would like to achieve when the business succeeds and motivate themselves to keep facing any hard things. Also, As the size of the organization grows, changing the organization's structure and operation can make it easier for diverse people to work together without confusion. Creating a situation where members embody the organization's core value can make the entire team collaborate and work in the same direction.

Energy and funds are essential in growing the business and moving the company forward. Having a mentor that you can talk to about raising funds is an advantage to help you build an optimal capital policy and grow over the long term. Accepting shareholders through funding means accepting various ideas, so it is essential to understand what they are expecting clearly. The energy to move a company forward is not only financial. Many successful entrepreneurs say they owe their success to luck. Continuing to take actions that will bring good fortune every day could create unexpected good events and use them as energy for the company's growth.

Thus, start-up companies can achieve more and more new things faster by creating attractive products, continuously demonstrating the company's strength, and capturing the energy of growth.

The summary of each pattern in this category are shown in table2.

Table 2: 9 patterns in Actualizing with Speed

| Group Name                                  | Pattern Name             | Solution   |
|---|--------------------------|--|
| Inventing an Iconic Product                 | Unparalleled Originality | Aim for the point to locate major resources for creating quality that is far ahead of all others, and build outstanding own original characteristics of product and company.   |
|   | Regular Users' Voice     | Pay attention to the voice of people who use the product or service regularly, and enhance the feature that has positive feedback from them so that you can develop a product or service to satisfy and go beyond the expectation from them. |
|   | Long Term Effect         | Understand the long-term effect of marketing by bundling each marketing measure and grasping its total cost and total effectiveness, then use this information for the next marketing strategy.  |
| The Way to Perform at the Best Consistently | Personal Dream           | Have a very personal dream when you succeed in the business in order to have a continuous driving force inside of you for overcoming the hard things.  |
|   | Scale Reactive Structure | Consistently adjust the organization's structure, policy, and way of sharing information to fit the current circumstances of your growing company.   |
|   | Daily Use of Values      | Create an opportunity to be exposed to use the core value words and take actions daily by designing an environment where core value words are used in everyday conversation.   |
| Taking in Energy to Boost the Acceleration  | Financial Mentor         | In order to know the optimum amount of capital, get advice from former entrepreneurs or trustworthy investors about essential or cautionary points of financing that could only come from their experience or perspective.                   |
|   | Inventors' Interest      | Understand what investors are trying to achieve in the future through investing in your company, and get invested from someone who has the exact directions you wish to take.  |
|   | Make Luck                | Create more unexpected great surprises by challenging many things fearlessly, using positive words, and having relationships with people in luck.  |

### 3.1.3 Third Category, Incessant Growth

The skills and what needs to be done will change as the company grows. Therefore, executive members and organizations must metamorphose in order to keep growing. As the stage changes, it is necessary to establish an optimal management structure that will serve as its brain. When the company's policies and initiatives change, some active members may try to operate against a new policy. Therefore, it is essential to make time for dialogue to avoid the negative consequences of such moves for creating healthy organizational management. When hiring for business expansion, it is an excellent opportunity to create a strong organization for long-term growth by hiring people with a high level of sympathies which will help to deepen the culture of the organization.

In order to continuously create new value, companies need to form an organization with liveliness by enhancing a sense of unity as a team and the high aspirations of each individual. The first step is to create a foundation for collaboration by co-weaving the values and behavioral guidelines that are important when working as a company member. Sharing information that the CXO and proactive members have, and business cases that they find appealing will help raise the perspective of other members and strengthen the organization as a whole. In addition, showing the CEO is working harder than anyone else to realize the vision will boost the members' morale and create vitality from within the organization.

Entrepreneurs are required to develop their management skills and personal growth to realize their visions and truly create the future. Making and engaging with other entrepreneurs with the same perspective is a great way to think together about their problems and gain energy for further growth. Once information vital to the company is obtained from interactions with other entrepreneurs and mentors, it is essential to share it with company members and start working on it immediately. Working diligently on daily work and broadcasting

vision and efforts to achieve it to society, building a sense of trust, and gathering many collaborators to create the future together is essential.

As stated, by promoting the healthy turnover of the members, improving the liveliness of the organization, and growing as an Executive, entrepreneurs will realize their ideal and create a new future.

Summary of each pattern in this category are shown in table3.

### 3.2 Full description of 6 patterns

This section shows six patterns from two groups: Establishing a Powerful Vision and Building Tough Team. These patterns are essential in the company's founding phase or changing the company's direction or situation. The entrepreneurs' will be significant when deciding the company's future policies and significant moves. Therefore, the contents of the patterns are written to support the founders and the CXOs in building the organization's foundation by incorporating their aspirations and working with their team.

Table 3: 9 patterns in Incessant Growth

| Group Name                           | Pattern Name                    | Solution  |
|--------------------------------------|---------------------------------|---|
| Healthy Turnover of Members          | Optimizing Executives           | Running the company with an optimized executive team according to company growth by re-build the team with eligible members who have skills and viewpoints required in the next phase.  |
|                                      | Time with Distant Members       | Willingly take dialogue time to hear and accommodate members' thoughts who started to have different minds about general policy. When the dialogue could not reach mutual understanding, then discuss what their next step might be and send them off to the next path. |
|                                      | Recruitment for Enhancing Unity | Employ the person who would enhance the sense of value and culture in the company in order to strengthen the unity of the organization through recruitment.   |
| Elevating Liveliness of Organization | Co-Weaving Values               | Reconsider important things each member wants to keep for your company and integrate them by discussion to weave corporate values.  |
|                                      | Raise the Perspectives          | Create an opportunity for members to have a contact key person and information which brings feelings of the fascination and importance of the following challenges the company is trying to do so that each member can realize its meaning and necessity of doing so.   |
|                                      | Show the Striving               | Showing that you are striving to realize vision more than anyone motivates members to stimulate momentum and excitement.  |
| Growing as an Executive              | Fellow Entrepreneurs            | Have a connection with people who are going through the same executive experience or have been in the same position in the past so that you can have an open and honest talk with someone who is in your shoes.   |
|                                      | Acting on the Spot              | Understand what investors are trying to achieve in the future through investing in your company, and get invested from someone who has the exact directions you wish to take.   |
|                                      | Trust as a Person               | As soon as you receive good advice, share it with the executive team and members who have something to do with it to begin a discussion about whether the advice will be taken or not.  |

### 3.2.1 Catch the Star

## Catch the Star

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

You are envisioning the future to achieve.

▼ In this context

**Thinking of a vision as an extension of what you 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 your current position. However, this makes it difficult to conceive an fascinating 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 find it hard to be attracted to your vision or be willing to support and cooperate with you.

▼ Therefore

**Embrace the ideal with a highly ambitious perspective, and imagine a future that inspires yourself and attracts many people.** Imagine what kind of new era will arrive when you thoroughly pursue the solutions to the problems and what you want to achieve. If the image of the future that emerges from this process is the one that you find genuinely 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

Aiming for an fascinating future as high as catching a star metaphorically starts an adventurous challenge to create an upbeat future that anyone has yet to see. Aiming for a highly ambitious goal creates power and inside strength within yourself that you would not usually 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.

### 3.2.2 Own Strengths

## Own Strengths

You will not be able to reach the star without fully leveraging yourself.

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

▼ In this context

**It is only possible to realize a remarkably high fascinating future if there is a 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 the skills, experiences, expertise, and connections you have developed in your life and work. Then think about how those can be used to realize the future you want. Also, consider how you can leverage most of your skills and

experience more effectively. Strengths here include not only professional skills but also physical strength, the 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 fascinating future.

▼ Consequently

You can move forward with a vision that only you can achieve. A vision 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.

### 3.2.3 Increase Clarity

#### Increase Clarity

Details of an fascinating future make the vision clear, furthermore uncover the path you will take.

You are envisioning the future to achieve.

▼ In this context

**If you only have a vague vision, it is challenging to realize the future you aim for because it lacks the connection of what you will 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 can still work toward the direction, but it will be challenging 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 fill in the details of your vision and think about what you need to do and when.** For example, using tentative figures, think of how many users and organizations you aim to introduce the product or service you are developing. Also, by deciding specifics about when to achieve those figures, you can back-cast from there and figure out what kind of condition you 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, you will be able to think about what kind of structure and approach you 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.

### 3.2.4 With Different Experts

#### 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 ambitious 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 their expertise will likely 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.** When you could find a possible partner through your previous jobs or introductions from people you trust, try to meet them in person. Also, attending pitch events would be another opportunity to find a possible partner. The Outstanding 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 why the person is essential to realizing your vision for the fascinating future.

▼ Consequently

By assembling a small team of people with their specialties and strengths, you can create a core organization member. 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.

### 3.2.5 Rough Basics

#### 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 experts, it is often left to those knowledgeable in that field. However, if this is the case, it becomes impossible to discuss when there is 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.** It is good to know three things for each area: what the area is, the current topics, and the issues within the area. For instance, 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 professional magazines and spiralized TV programs. By listening to people who specialize in the field, you will be able to gain a deeper and more essential understanding.

▼ 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 area and a sense of security and trust that they are being understood.

## 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 anyone has yet seen.

▼ In this context

**Even if you have a team of members with excellent skills and experience, it is difficult to make a significant 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 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

**Create a connection and collaboration with key persons who can be the starting point for new trends and organizations that can help achieve your vision and challenge the things you cannot handle on your own.** For example, you can connect with companies with 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 working on the same matter. Through these connections, you can work together to realize your ideal. When 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, by showing what you will undertake and what you want them to undertake, and what benefits there will be for both parties, you can start to 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. It will become more accessible and easier to tackle the next challenge with other people involved. When your company can 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 holistness in a characteristic. It means having 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. This section 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*. Once entrepreneurs have created a vision that they think is great, it is essential to share it with others to get their reactions and refine the details and how they deliver it. At this point, it is a good idea to talk to *Fellow Entrepreneurs*. Rather than blindly discussing entrepreneurs' choice of people, they can talk to people who have similar experiences as start-up entrepreneurs to get a deeper conversation and more insightful advice.

Even if the vision itself is powerful, 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 with a strong empathy for the vision may find a gap in the direction, they want to pursue in terms of the future of themselves as the company grows and as each member grows. For circumstances like this, it is vital to take *Time with Distant Members* and consider whether you can continue working together by reconciling entrepreneurs' and members' opinions.

The second pattern is *Own Strengths*. There are times when entrepreneurs have a vision that they want to achieve at all costs, but they do not 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*.

Serial entrepreneurs often aim for a higher goal with their businesses. 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 more considerable challenges.

The last pattern for creating a 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 by talking directly to *Frontier Runner*, not the only searching 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 business plan with a mentor to see if entrepreneurs could get the fund. By talking to senior entrepreneurs and trusted investors, entrepreneurs can understand which parts need to be worked out in more detail.

In order to start company *With Different Experts* as members of a founding team, it is crucial 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 challenging to meet the best partner if you just wait around. It is essential to take the opportunities that come entrepreneurs' way without holding back associating with people considered lucky and creating new encounters with *Make Luck*, which involves keeping entrepreneurs' words and actions positive and keeping taking action to make luck.

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

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

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

For expanding business, entrepreneurs need to make sure that the *External Collaborators* are the right people for them. There are indeed 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 tough to identify them. Therefore, they can ask experienced entrepreneurs or trusted investors to be *Financial Mentors*. By listening to their perspective on the reputation of the people they are trying to bring on board, entrepreneurs can get the information they need to think about whether they will be a good match for them.

Intending to increase the number of *External Collaborators*, entrepreneurs need to build their *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 motives 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. Since Start-up Patterns have 27 patterns, all their relationships are not revealed yet, but we hope to clarify them through future research.

## 5. CONCLUSION

This paper introduced the start-up patterns with summaries of the whole picture of language and six patterns in the Unparalleled Strength category. This category contains the patterns of how to create a powerful vision for a start-up and gain the cooperation of others to boost the growth of a start-up. The other two categories contain patterns of what is important to continue to produce high-quality products and what is essential 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 start-up executives and promote mutual learning through patterns. We would like to introduce its effects in a future paper.

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