Need for Seihan transformation

"Seihan" is the system that has been refined by the world-leading Japanese manufacturers.

However, in a fast-changing world, new issues are observed.

What is an ideal structure of Seihan?

"Monozukuri" *1 once ruled the world

Technology-advanced country, Japan. Japan's manufacturing industry has been driving the Japan's economy by creating strong products with its innovative technology. In the past, only manufacturing industry is keeping an average of 20% or more in Japan's GDP ratio.

In addition, without relying only on technical capabilities, Japanese companies kept putting a lot of effort and have achieved inventory minimization by introducing "Seihan" *2 meeting and Kanban

system*3 in the 1980s. Through such efforts, they have pursued good value offering of products.

After that, from 1990 to 2000, with the development of IT, advanced IT systems such as ERP appeared and was introduced in many companies. They have practiced more advanced manufacturing operations by connecting all the way from demand forecasting to sales planning to production planning to parts procurement.

In addition to IT introduction, Japanese companies have been promoting organizational reform. In the 1970s and '90s, many manufacturing companies

*1：Monozukuri is literally manufacturing in Japanese but includes spirit and know how of Japanese craftsmanship.

*2：Seihan literally means manufacturing and selling but also includes cross function communication for value chain optimization.

*3：Kanban (meaning signboard in Japanese) developed by Toyota is a scheduling system for lean manufacturing by connecting all the players in entire manufacturing process. A part of just-in-time manufacturing (JIT).

launched "Hansha" (sales companies) and separated the sales functions from manufacturing ones. The organization form, which makes the employees to dedicate either in manufacturing or selling for productivity improvement, became a trend.

Shotaro Kamiya, called "The god of sales" in Toyota, introduced the system of manufacturing and sales separation ("Kohan Bunri") immediately after the World War II. It is famous that this idea of separating sales and manufacturing helped the president of the time, Kiichiro Toyoda who said that "It is difficult to sell cars rather than making them."

Professional sales personnel dedicate to understand customer needs and to expand the revenue with overwhelming human power. Manufacturing personnel dedicates to produce advanced technology products through sophisticated operation. This is what the Japanese manufacturing industry pursued.

Now, changes are required in Seihan

From 2000 to 2010, two major changes occurred in the manufacturing industry.

Firstly, product lifecycle became much shorter. As shown in Chart 1, the years required for the spread of products have been decreasing magnificently.

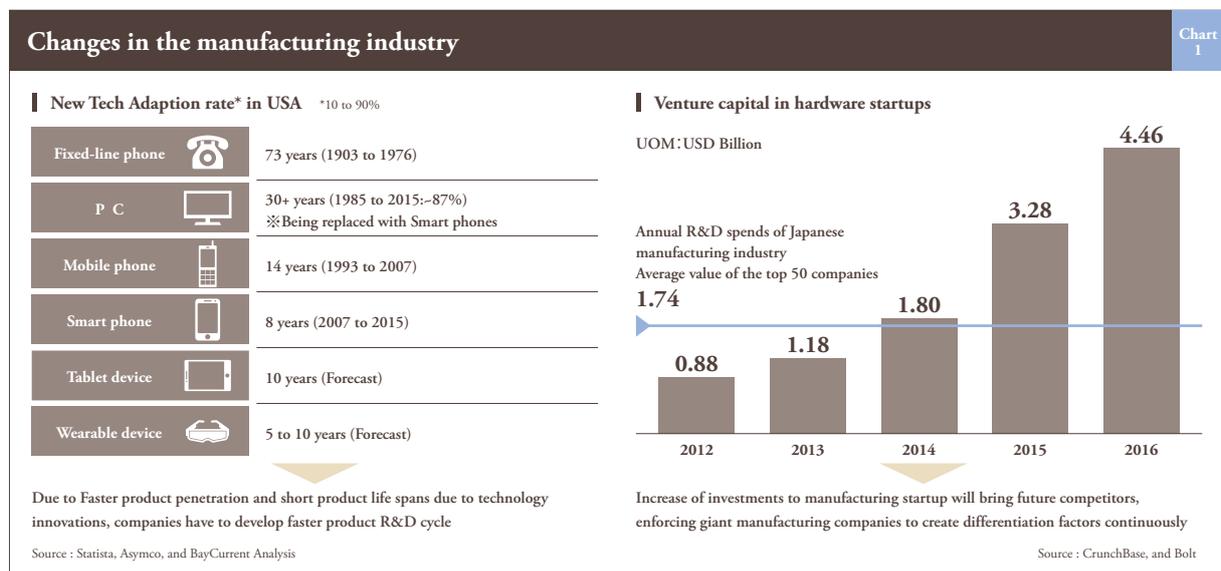Secondly, due to the dramatic reduction in

restrictions on manufacturing, it became easier to guarantee a certain quality. As the distribution network was organized globally, high-quality parts and manufacturing machines became available anywhere and IT system made it easier to manage them. In other words, Monozukuri became possible irrespective of company size. As the chart below shows, the investment in hardware start-up companies is on the rise. Competitive startups will keep appearing one after another.

In response to these two changes, the differentiation factor of product and business is moving to the speed of response to the opinions of users and potential customers rather than the careful Monozukuri that has been pursued by Japanese manufacturing industry.

The manufacturing and sales separation model pursued by Japanese manufacturing industry would have been suitable for a business model that thoroughly sells products produced by Product Out-oriented production following strictly customer demands. However, it has become impossible to respond instantly in this era.

In order to grasp market trends, they first began to strengthen marketing functions. Many companies have set up a marketing department and strive to collect market trends to develop new products.

A mechanism to grasp the Voice of Customer (VOC) has been developed. For example, the

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Changes in the manufacturing industry

Chart 1

New Tech Adaption rate* in USA *10 to 90%

Fixed-line phone ☎	73 years (1903 to 1976)
P C 🖥	30+ years (1985 to 2015:~87%) ※Being replaced with Smart phones
Mobile phone 📱	14 years (1993 to 2007)
Smart phone 📱	8 years (2007 to 2015)
Tablet device	10 years (Forecast)
Wearable device 👓	5 to 10 years (Forecast)

Due to Faster product penetration and short product life spans due to technology innovations, companies have to develop faster product R&D cycle

Source : Statista, Asymco, and BayCurrent Analysis

Venture capital in hardware startups

UOM：USD Billion

Annual R&D spends of Japanese manufacturing industry
Average value of the top 50 companies
1.74

2012	2013	2014	2015	2016
0.88	1.18	1.80	3.28	4.46

Increase of investments to manufacturing startup will bring future competitors, enforcing giant manufacturing companies to create differentiation factors continuously

Source : CrunchBase, and Bolt

telephone conversation of the complaint is also recorded, and the user community web page is prepared, and exchange of opinions is urged. Salespeople are still working hard internally to make the company work for their customers.

However, Japanese companies are struggling to expand their business. In recent years, not many Japanese products or services have been sold explosively. Not only that but also, many manufacturing businesses such as PC and semiconductor have been sold. Also, even in the world of "IT Monozukuri", AWS and Microsoft Azure have become major providers of platforms, and there are not many Japanese services that can be compared.

How do advanced manufacturing companies gather customer's opinions, make use of it in product development, and enhancing competitiveness? We uncovered this and drew hints for manufacturing companies and IT makers to renovate.

Typical pitfalls where manufacturing - sales separation type organizations are likely to fall

Technology-depended Monozukuri ignores voice of customer

The organization type which the automotive and appliance manufacturers have mainly formed is a "manufacturing - sales separation type" organization. Companies have sought to distinguish manufacturing and sales functions clearly to strengthen their expertise. The challenge commonly observed in this organization is the delay in response to the market need due to the heavy dependency on their own technology. The products tend to be a technology-conscious product because customers' voice is unlikely to be delivered from the sales as they are separated. Less communication facing customers will end to the situation which they fall into unfounded obstacles that "our products are surely good because we implemented high-quality technologies."

Absence of business owner

The manufacturing and sales department may criticize each other as "it is the salesman's responsibility that the product cannot be sold" or "the product is bad, so customers do not buy it". When such internal criticism begins, it is extremely dangerous as an organization. The business owner becomes absent.

Unless pursuing the root cause of not to be sold, they cannot escape from this condition. Products and services truly required from the market cannot be created and good results do not come out. The cause not to be sold is "extra-punitive mindset", and the relationship within the company further deteriorates. It is important to keep us pursuing customer value even with superior technology.

【Column】
Why was iPhone X so unpopular?

For example, iPhone 8 and X were released in 2017, but as is well known iPhone X sales are not particularly good. There are some differences between iPhone 8 and X, but one big difference is face authentication technology. However, it seems that the incorporation of this advanced technology leads to the cause of X's failure.

Until then, when unlocking the device, it was only the operation of pressing the home button with fingerprint authentication which was the feature of the iPhone. The action of pushing the home button was the operation which is always necessary when using the iPhone. It was a very good user experience because it allowed smooth authentication through the usual operation.

But how about face authentication on iPhone X? For face authentication, users need new actions. Putting the smartphone on the front of the face and to looking at it. Especially when you want to unlock a device inside a crowded train or during a meeting, bringing an iPhone to the front of your face is awkward and inconvenient for the user. Face authentication itself is not a bad technology. Face authentication in PC creates a very good user experience. Because sitting in front of the display and seeing the display is the usual behavior. However, if you are aware of the user experience like the case of iPhone X, there are certainly some technologies that should not be incorporated even if they are advanced.

Risks of manufacturing - sales integration model

Too much dependence on customer's voice

On the other hand, a "manufacturing and sales integration type" organization is an organizational system where sales and manufacturing functions are co-located under the business division. Many major IT makers have adopted this model. As distance between production (including engineers) and sales is close, it is easier for sales to deliver customer's voice directly to manufacturing. Also, in many cases, common KPIs such as revenue and profits are shared to both manufacturing and sales organizations.

However, in this integrated structure, the sales department with customer's voice may wield around the manufacturing and development department. In other words, the organization heavily depends on customer's voice. Especially the voice of a large customer is significant as a salesman will be afraid of missing the orders by not responding to this demand. But the product will not always be great just following "what the customer said." It is often heard that the package developed for large customers could not be used at all by other customers.

Declining innovation power

The word "Customers said" is highly persuasive. According to the request, there is a high possibility of winning at least one business. However, such

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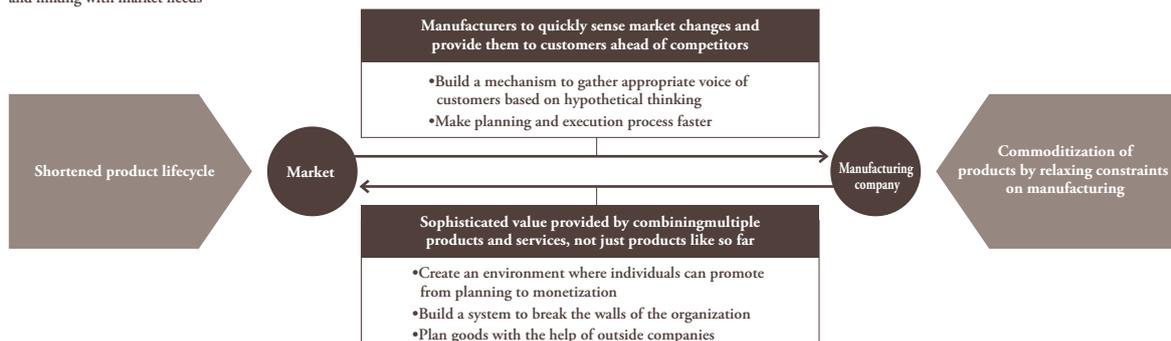### Observed issues of current organization and ideal structure

Chart 2

Symptoms often found in unhealthy organizations

Does your company have unhealthy signs?

	Observed issues		Typical situations
Strategy/Shared value	Common goals are not shared	☑	Direction of KPIs is different for each department
	Business strategy is not shared between manufacturing and sales	☑	Strategy meetings are conducted only for each department
System/organization	A mechanism for collecting the voices of customers and employees is becoming empty	☑	There is no mechanism to evaluate the customer's voice, and priority is given to large business deals with strong voice
		☑	There are few chances for the R & D department to communicate with customers
	No incentives for improving other departments	☑	Evaluation falls when pointing out problems of the organization
		☑	Evaluation is not given to solve organizational problems
	The person in charge of the business/project is unclear	☑	Official evaluation criteria doesn't consider how many functions and products developed under the proposal by salespeople are sold
		☑	KPIs related to "Innovation" are not established in R & D division
		☑	Person in charge for a project can not be answered immediately
Culture/People	People often blame failure on others (Extra-punitive culture)	☑	Salesperson's always pass the blame to "customer"
		☑	People believe the reasons for not selling are due to products and/or sales divisions
		☑	There are many internal criticisms
	Nobody shares real intentions	☑	People call each other with "Mr. Sales-San", "Mr. Factory-San", "Business Unit-San" as the organization name (too distant)
Skill/Promotion	The true value to the customer can not be provided	☑	The majority of sales phrases and catalogs are appeals on the height of technology level such as "the world first" and "improvement by 30%"
		☑	In the catalogs and commercials, it is not presented how consumer living scenes and site work of client companies will change concretely

The ideal structure of Market-Partner linked Monozukuri

In order to provide innovative products in a shorter period of time, it is necessary to interact with internal and external partners and polish ideas while identifying customer's opinions and linking with market needs

Manufacturers to quickly sense market changes and provide them to customers ahead of competitors
- Build a mechanism to gather appropriate voice of customers based on hypothetical thinking
- Make planning and execution process faster

Shortened product lifecycle → Market → Manufacturing company ← Commoditization of products by relaxing constraints on manufacturing

Sophisticated value provided by combining multiple products and services, not just products like so far
- Create an environment where individuals can promote from planning to monetization
- Build a system to break the walls of the organization
- Plan goods with the help of outside companies

voices are usually mostly from existing customers as it is easy to collect. In other words, in many cases it will not be a hint to penetrate into new customer segments.

In addition, these voices are usually mostly short-term perspectives. If we continue to keep up with the evolving needs such as "I want you to update this function, interface etc.", the product development in the 5 or 10 year perspective will be postponed more. As a result, research and development departments are weakening. Again, in order to acquire new customers and continuously expand business, it is necessary to provide value that customers themselves have not yet noticed or thought.

What are the common issues of both organization types?

Common issues of "manufacturing - sales separation type" and "integral type" organization are that the starting point of manufacturing is biased. Separate type cannot respond to customer's voice, while integrated one has insufficient innovation power and cannot overcome competition. At the time you notice, the bad culture like that shown in Chart 2 will be deeply rooted.

What is the organizational format to aim for?

The companies should aim to be "market-partner cooperative type" organization in this era when it is necessary to provide customers with higher value in a shorter period of time. From a short-term business perspective, production and sales must take action based on market voice. On the other hand, it is difficult to provide unprecedented value quickly only by themselves. We unraveled advanced cases and examined the path of change to this cooperative organization.

Linkage with market

①Collect truly-needed voices of customers

As customers' needs rapidly change, it is important to collect customers' voices on a daily basis. Many companies are working on collection of voices, including big data. But are those voices really necessary and sufficient to make business decisions later?

Important to distinguish customer's voice
~ Gap between ideal and practicality ~

Most of the voices raised by customers are cosmetic needs with short-term perspective. It is very rare for customers who seriously consider products and services and present improvement proposals based on market needs. On the contrary, the voice that comes up naturally may not be "true needs" in some cases.

There is a famous case. A dishware maker asked housewives "What kind of tableware do you want?" in group discussions. They concluded that "fashionable, cool, black and square design." However, the gifts chosen for the gratitude were totally different. They chose a "round and white" dish. When asked why, "A lot of dishes at home are round and white, so even if there is only one fancy black box, it does not match". As this example shows, the voices that customers themselves raises may lack some viewpoints. In this questionnaire, even if they thought that "design" is good, the viewpoint of "practicality" was missing.

Do not just listen to the customer's voice. Be conscious to make their voice out

In order to acquire a voice that contributes to business judgment, it is difficult with the hearing method of "Order Taker". As in the previous example, there are many missing valuable viewpoints and customers may answer without thinking deeply. In order to prevent this, it is vital to prepare to make customers think and speak. In other words, the researcher must have the customer's voice hypothesis and build up the question to verify it.

Tips for the good interview guide

Chart 2

A good hearing based on the prepared hypothesis can encourage the partner to think and to have a deep opinion spit out

Key points	Bad examples	Good examples	Expected outcomes
Prepare the hypothesis you want to verify and ask closed question	What complaints do you have with our products?	I think the **challenge of our products was based on processing performance**, but what are you thinking about?	Urge interviewees to think. Even if it is different, interviewees sometimes speak of another complaint (In the case of open question, the answer often becomes ambiguous due to a troublesome impression)
Present a viewpoint comprehensively	Are there any dissatisfaction besides processing performance?	Besides processing performance, how about **price and design**?	By presenting a point of comprehensive view, it is possible to prevent omission of opinions
Prepare "a ruler" when examining quantitative hypothesis	How fast should processing performance that was a neck should be?	If the **processing performance is 20% higher**, could you consider purchasing?	By giving a ruler you can expect answers to questions that are difficult to answer (Hypothesis can be narrowed down by larger and smaller judgment)
Stand on the interviewees' eyes to let them have a clear image	A better cloud environment can be prepared by using a dedicated communication line. What do you think?	If the processing performance is 20% higher, it **can be used in your sales operation.** If so, would you consider purchasing?	Have the interviewees imagine own usage scene and make them speak as a person concerned

Dr. Sheela, Bosch's data scientist, emphasizes the importance of the hypothesis. "There are so many companies thinking to collect large amounts of VoC data first, as everyone gets to pay attention to Big Data and AI. Indeed, Big Data, a collection of customer's voices, is very important. However, if the business unit such as production team does not have the concrete hypothesis to verify, floods of data will occur and the project will definitely fail. Therefore, business department is instructed to always have a hypothesis to verify as a business owner".

How to conduct more effective interview

Interviews in sales activities tend to be misunderstood as just collecting a lot of information anyway. Have you had an interview only by preparing the question list and regretted that "we wanted to hear more deeply"? As mentioned above, hearing should be a part of hypothesis verification and a well-structured interview guide should be prepared.

As shown in Chart 3, designing questions based on the hypothesis will encourage interviewees to think about the points that are not conscious on a daily basis. It is also good to include open questions if the interviewees are strong customers, i.e., royal customers of the products. However, still open questions should be limited up to about 20% of the total and priority should be given to validation of hypotheses related to company business decisions.

Actively add the royal customers as a partner to the trial activities

Many companies use trials at development phase as a method to listen to customers' voices. By actually having customers touching the products and services, companies would gather more viable and informative feedback. However, it is also common that customers often do not cooperate seriously because the sense of ownership is scarce.

In order to prevent such unnecessary trials, Microsoft development department themselves creates a hypothesis to verify. Also, they select appropriate customers and conducts short-term intensive trials on one-on-one basis. By clearly setting the period, more important voice will be raised from customers. Also, as customers feel a sense of fulfillment by handled specially, they are likely to become repeat customers.

In Japan, the culture of "Customers are Gods" evolved excessively, and the company often does not offer new products to the world until the perfect quality is guaranteed. However, such pursuit of excessive quality sometimes deviates from the needs of the market and the price becomes too high. In order to prevent such excessive quality, it is useful to have a trial conducted within an agreed period with the royal users.

②Quick business planning based on voices

It is necessary to plan businesses based on the voice gathered in this way. And today, we have to design businesses quickly and prioritize them. In recent years agile development has become a standard approach, and the development process is already getting faster, what should we do to speed up further?

Unify the judgment criteria of the business plan and make it thorough for all employees

First of all, it is not easy to plan a new or reinvent products and services from collected voices. Often the judgment criteria for its implementation are ambiguous. Also, the planning team has been swayed by the process within their own company such as explanations and negotiations. It is likely that several months has passed when you notice.

Amazon is a company that unified the judgment standard company-wide. The planning document called "narrative" is a brief summary of information sufficient for CEO Jeff Bezos to make management decisions. This includes what kind of products/services/functions need to be developed, how much they cost, why our company should do it, and so on.

Jeff Bezos emphasizes "It is impossible to have a clear idea without writing beautifully-structured narratives", and they always uses narrative in decision-making meetings. The meeting begins with the reading of this narrative, and all people realize the planning process quickly without delaying judgment by understanding the plan deeply and thinking.

Let the customers judge

There is also a way to prioritize the product development plan. It is the user's voting system. In Microsoft's user site, users can post desired functions on bulletin boards, whereas users can vote on whether they want it or not. It is important that this voting right is restricted to 10 votes. Unlike SNS, it is not possible to infinitely press "Like!" button. It is a mechanism that you can display intention for the function you really want. This mechanism, which makes customers decide, is reasonable because the customer plays a part in service planning, thereby increasing the user's loyalty.

③Improve transparency and strengthen relationship with customers

It is not realistic to quickly respond to all voices. Even if a lot of voices are gathered to particular demand, sometimes the companies need to lower the priority due to management reasons. In such a situation, increasing transparency thoroughly will help to keep the customer's loyalty.

Microsoft discloses the development status for individual requests on the bulletin boards. It is in four stages; under consideration, internally approved, under development, and rejected. Such transparency will become "dialogue" with customers and customer satisfaction will be enhanced.

Until today, it has been a common sense that the development situation should not be disclosed and keep it unknown to the world, but we should also consider sharing it with customers.

Everlane thoroughly pursues transparency

There is one company pursuing transparency thoroughly. Everlane is a clothing maker. As shown in Chart 4, the company discloses manufacturing costs such as material and factory employee salaries on its website. As attention to corporate CSR such as work-life balance and human rights is increasing, their clean transparency, enough to have no unknown part is highly appreciated.

In fact, the world is very sensitive to whether companies and organizations are transparent.
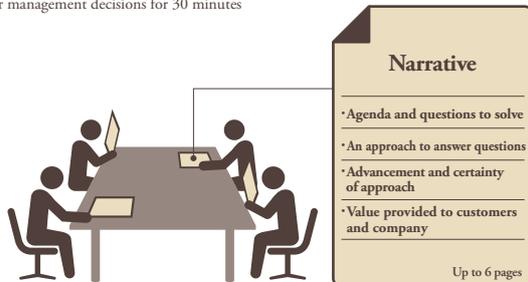
For example, it is said that face authentication and identification technology Microsoft provided to ICE (Immigration and Customs Investigation Bureau) is used for illegal immigration discrimination system. Recently, the painful movie that the parent and child, who were recognized as illegal entry by the system, are pulled apart has spread. As a result, it has developed to a boycott of Microsoft products. Microsoft has avoided

Amazon's rapid product planning and judgment process

Amazon's conference begins by reading "Narrative" that aggregates information necessary for management decisions for 30 minutes

Narrative

- Agenda and questions to solve
- An approach to answer questions
- Advancement and certainty of approach
- Value provided to customers and company

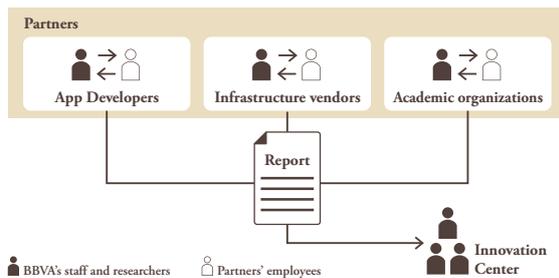Up to 6 pages

Everlane's thorough transparency

Everlane discloses all costs of products such as manufacturing cost, personnel expenses, transportation expenses to customers, and ensures thorough transparency

| Materials $14.85 | Hardware $1.90 | Labor $15.07 | Duties $5.09 | Transport $.80 |

INTER NATIONAL COSTUME

True cost $38

BBVA's continuous catch-up mechanism of state-of-art technology tren

BBVA has concluded cross-industry partnership. They have dispatched their employees to their partners and acquired insights there
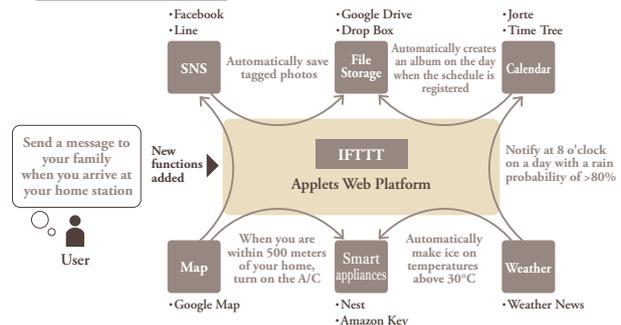
Conceptual image

Partners

| App Developers | Infrastructure vendors | Academic organizations |

Report

Innovation Center

👤 BBVA's staff and researchers   👤 Partners' employees

Descriptions

- **Conclude partnership beyond industry** for technical innovation
  - Application developers like Facebook
  - Infrastructure vendors like Intel
  - Academic organization like MIT and Stanford
- **Dispatch internal researchers to partner organizations** to collect new technology ideas
  - Researchers will be dispatched from 6 months to 1 year
  - The researchers allocate 50-70% of the time to investigate and prepare reports, the remaining 30-50% will be used for partner
- Give incentives to researchers' **new technology idea report**
  - Give incentives to researchers' new technology idea report
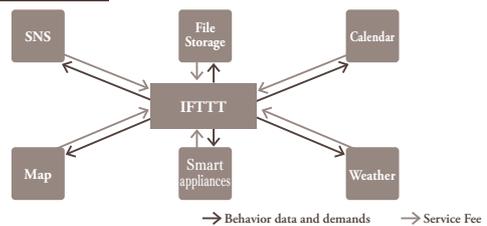 - In addition to researcher's own learning, output such as in-house report is needed

IFTTT's customer-participation-type Monozukuri

IFTTT provides 'Applets' connecting multiple applications.
They sell the user behavior data obtained here to the application developers
Users can create their own Applets on the web. Consumer behavior changes day by day, it is difficult to grasp. IFTTT has consumers register them with themselves

Service Model

SNS
- Facebook
- Line

Automatically save tagged photos

File Storage
- Google Drive
- Drop Box

Automatically creates an album on the day when the schedule is registered

Calendar
- Jorte
- Time Tree

Send a message to your family when you arrive at your home station

New functions added

IFTTT
Applets Web Platform

Notify at 8 o'clock on a day with a rain probability of >80%

User

Map
- Google Map

When you are within 500 meters of your home, turn on the A/C

Smart appliances
- Nest
- Amazon Key

Automatically make ice on temperatures above 30°C

Weather
- Weather News

Business Model

SNS   File Storage   Calendar

IFTTT

Map   Smart appliances   Weather

→ Behavior data and demands   → Service Fee

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troubles by announcing the company's statement, such as claiming the Trump regime to improve the policy itself to separate parent and child in the first place. From such a case, it is also clear that keeping both manufacturing and selling clean, is important in current manufacturing.

What evolution is necessary for high value provision?

As mentioned above, innovation is not born just by quickly responding to customer's voice. In addition, it is even more challenging when innovation is demanded in a shorter period of time than before. To do this, it is vital to change the culture and structure of the company, promote the growth of each employee, and utilize the outside knowledge without relying solely on the company.

①Delegate authority to managers, and evolve product managers with management mindset

No matter updating existing products or developing new products, everything starts with hypothesis-based planning. Many of these roles are usually given to the head of the business department and general manager. However, in recent years many companies assigned product managers to cope with many changes in the market.

For example, Schneider Electric, a major heavy electric appliance maker in France, has formed a planning team with product manager as a lead. In addition to designing the voices to collect, the product manager also has authority to issue instructions to sales and data analysis units. The units are not allowed to disobey the instructions. By giving the main authorities of the whole process to the product manager, Schneider Electric is fostering the management mindset within the company.

The point here is not to restrict responsibility just for planning, but to make product manager responsible for collecting revenue. Since the manufacturing team made a product, they must guarantee until monetization. Since the sales team also developed the function based on the customer's voice, they should be responsible for collecting the investment and generating profits. It is difficult to transform into an innovative constitution without letting each employee sublimate to management.

Stop demerit point system

The reason for a failure often found in companies is the lack of HR system renovation. Evaluation mechanism should be changed if the business environment changes, but especially in large enterprises, newly-implemented assessment systems are often becoming mere skeletons.

Failure in the business planning is inevitable. However, many companies in Japan keeps "demerit point system", and it is often said that virtue is to make no mistakes. In other words, challenging new business is a serious risk in many Japanese companies. It is natural that innovation is not born in such an environment. Whether

the result is good or bad, the company should set indicators to evaluate those challenges.

As criteria for promoting senior employees at GE, regardless of success or failure, it is stipulated that they will be involved in new business planning. They truly recommend a new challenge as a company.

Break down the organization's wall with KPI's reorganization
Create an environment where people can contribute

Even if the product manager has managerial philosophy and has achieved growth, surrounding support is absolutely necessary. Without cooperation from other departments, the speed of innovation will not increase. To that end there are two types of KPIs to be introduced.

The first is shared KPIs across departments. There were common indicators that the bonus varies partly depending on sales and profit so far. However, with this degree of influence, it is not an enough incentive to create actions for other departments. Needless to say, the roles of "manufacturing" and "sales" are largely different, but the goal that should be shared at the root is to contribute to customers and profit through products / services. As long as there is no consistent KPIs toward this goal, people who seriously work will be limited.

The second is the KPIs that evaluate each other's contribution activities. Not only the degree of accomplishment of individual goals but also activities that will benefit each other, such as sharing of knowledge and provision of feedback, will also be evaluated items. Many foreign-affiliated companies such as Microsoft and Adobe also incorporate these KPIs into the condition of promotion. In addition, the evaluation method is set to 360 degrees, and the cooperation beyond the organization is also activated. In order to increase the speed of innovation it is important to involve all the internal knowledge.

②Collect external knowledge to diversify the ideas

Meanwhile, there is a limit to establish hypothesis by our own company alone. Again, companies need cooperation with universities, venture companies and research institutions to get ideas.

For example, BBVA Bank (Banco Bilbao Vizcaya Argentaria) dispatches its employees to partner organizations and periodically collects information. The place of dispatching varies by Web service companies, infrastructure vendors, academic organizations. The dispatched employees support the partner organization's work in about 30 to 50% of the time while the remaining time is spent learning and creating new ideas. In order to acquire external knowledge, we should also consider collaborating with other companies.

IFTTT fascinates Google and Facebook through user participatory Monozukuri

There are companies that obtain service ideas from users. Do you know web service called IFTTT? This is a company that provides a service called "applet" that makes it easy for multiple SNS and applications to cooperate easily. For example, it enhances user convenience by the applets, automatically saving photos tagged on Facebook to Dropbox.

Basically users can use this service for free, and IFTTT is making money from web service companies such as Google and Facebook. Google and Facebook do not have the ability to chase users who have left their apps or services. Focusing on that, they collect and sell user's behavior data.

Their smartest point is letting users think about applets. For example, "applets" that a user has come up with for his own convenience remain on the IFTTT platform and can be used by other users. It is hard to think about hypotheses of consumer behavior in countless web services in the world. By having users think themselves, they are overcoming this difficulty. It is an epoch-making mechanism that allows users to participate in service planning by letting users think about necessary functions instead of the free convenient services.

Challenges and solutions for the evolution of Seihan

As mentioned above, nowadays, manufacturing and sales teams are required to work seamlessly with diversifying markets and customers. At BayCurrent, we have implemented a number of such transformations with various clients. From those experiences, we think that there are three major hurdles for change;

①Sticking to time-series analysis from the past

②Strong sense of resistance to talk about hypotheses

③High barriers among organization and mindset

①Sticking to time-series analysis from the past

There are many companies in Japan who are sticking with aging analysis from the old age trying to find changes in markets and customers. Many companies have not changed most of the question items such as consumer questionnaires and employee satisfaction levels. However, it is a big risk to stick to data that has been routinely acquired from the past. Mr. May, CIO of JABIL, the US major EMS company said "Data is worth seeing only in real time, data with no freshness cannot take appropriate action." Just because you invested past money, you should not rely on data analyzed in the past. You should throw away past data and try to acquire new data for freshness and items. Only by doing so, you can see the changes that you should see.

②Resistance to talking about hypotheses

Japanese people are cautious. Therefore, Japanese tend to feel resistance saying their own hypothesis without sufficient grounds. Many management felt the risk of raising such a challenging proposal in the state of hypothesis and cannot proceed forward

But in an era when the markets and customers change every day, we do not have time to think over the idea. We have to refine our hypotheses every day and verify.

Shogi player Mr. Yoshiharu Hanyu said, "Even if you can see only 5% of the whole picture, you make a hypothesis, which will strengthen the ability to grasp the whole picture and make intuition easier to work."

It is very important to make a hypothesis in the business world too. In addition, unlike shogi that must be played only one's brain, we can conduct hypothesis verification by IT-enabled data analysis in a short period of time.

Even if the hypothesis is incorrect, increasing the speed of the hypothesis planning ⇒ verification ⇒ execution cycle continuously leads to the minimization of risk today. For that, first of all, it is necessary to strengthen hypothesis thinking of both individuals and companies.

③Organization and mindset barriers

"Different departments are different companies." It is an expression occasionally spoken by large companies to ridicule themselves, but cooperation across divisions is indispensable in the creation of new products linked with the market.

However, as the "a big fish in a little pond" is everywhere, even with instructions from the CEO, this practice does not change easily. Collisions are scattered in cross-department data sharing, work collaboration, and budget sharing.

Schneider Electric said, "We placed the department of change agents directly under the CEO. Because the organizational barriers cannot be removed, we should promptly make such reforms at the management level." In transformation projects, we should also be careful with report lines and member assignments.

These three hurdles are not high barriers that Japanese companies can never overcome. In formulating this report, we interviewed several Asian manufacturing companies, but there were many voices of expectations for Japanese companies. "We want to further learn production methods and organization building that supports high quality mainly in manufacturing, construction and food industries of Japan."

We are expecting such a market-partner cooperative Monozukuri becomes a solid model and manufacturing of Japan rapidly grows globally once again.

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