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EDGE Program funded by MEXT
Keio University
Global Innovator Acceleration Program
2014
COURSE WORK
Day 3

Graduate School of System Design and Management
EDGE Program Team

Introduction

Instructor: Hiroshi Hashiguchi

- Tuck School of business at Dartmouth College
 - MBA, general management
- Mercedes-Benz Japan
 - In-house management consultant for dealers' turnaround
- Accenture
 - Management consulting for large companies in strategy group
- Management consulting startup, representative
 - Support for large companies' new business development
 - Support for venture businesses, PE's and VC's
- NARUMI corporation, director
 - Hands-on turnaround manager
 - Director both for current business operation and new business development
- Euphoria co.,ltd, CEO
 - Management consulting
 - IT systems for sports management/healthcare

OSORO

Before

Decorative and high quality
OR
Functional and low quality

Tableware
OR
Storage container

Chinaware
OR
Silicone ware

OSORO

High quality
AND
Functional

Tableware
AND
Storage container

Chinaware
AND
Silicone ware



Before

Functional and low quality

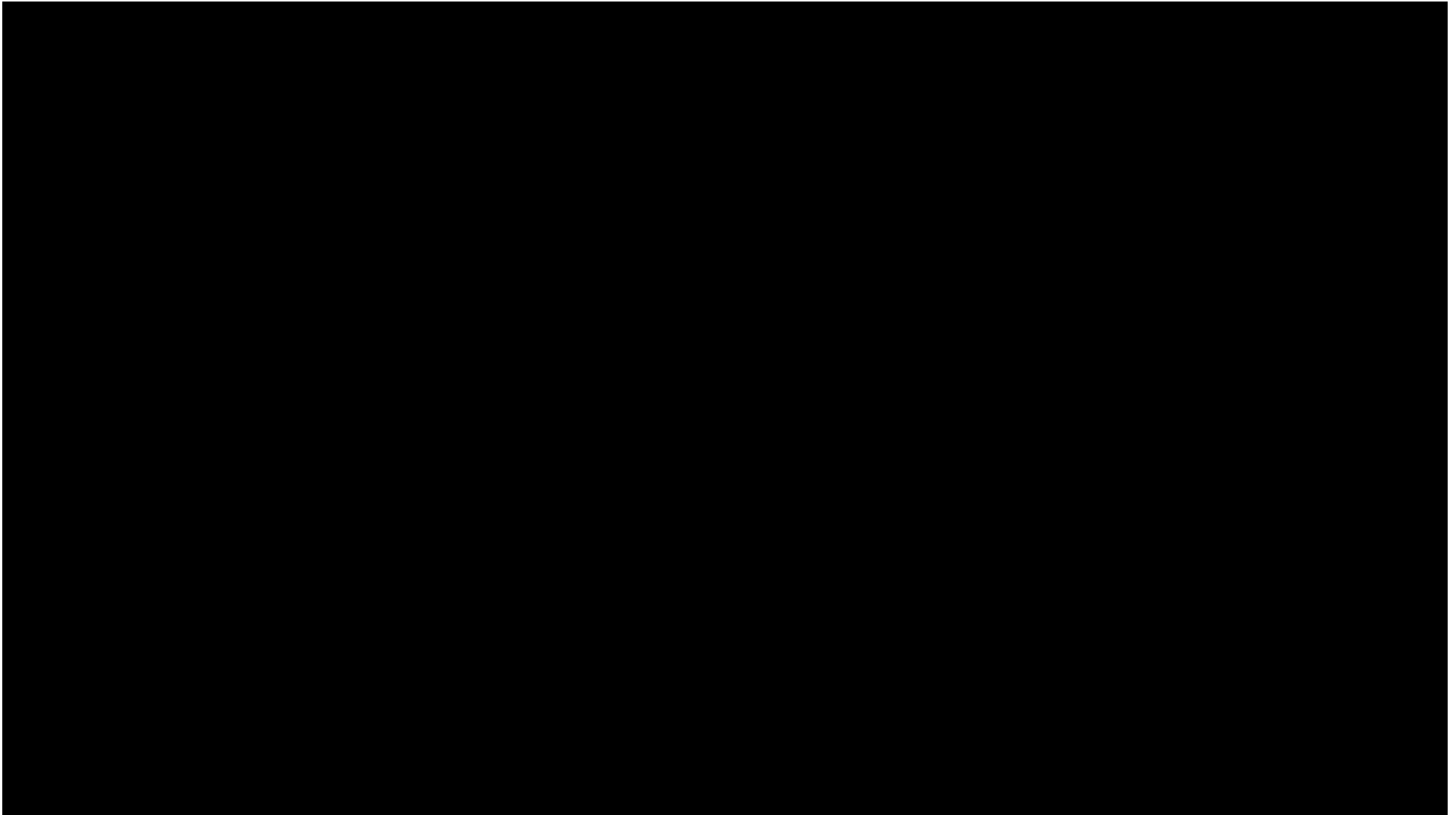


Decorative and high quality



OR

OSORO



Design Awards OSORO has received



reddot design award
best of the best 2013



product
design award

2013 GOLD



German
Design Award

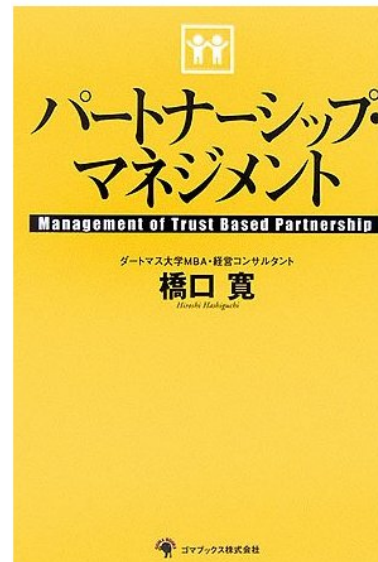
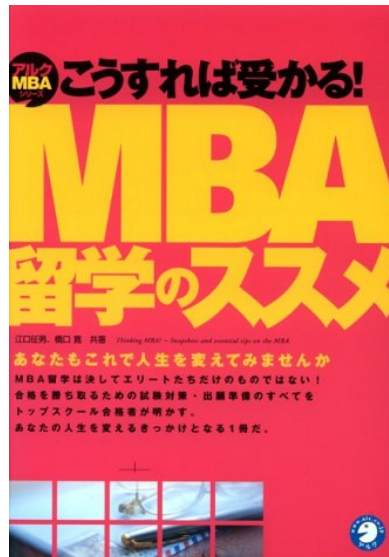
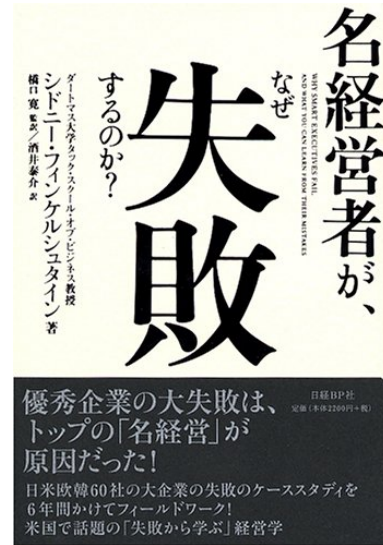
SPECIAL
MENTION 2014



A'DESIGN AWARD
WINNER 2014
PLATINUM



Books

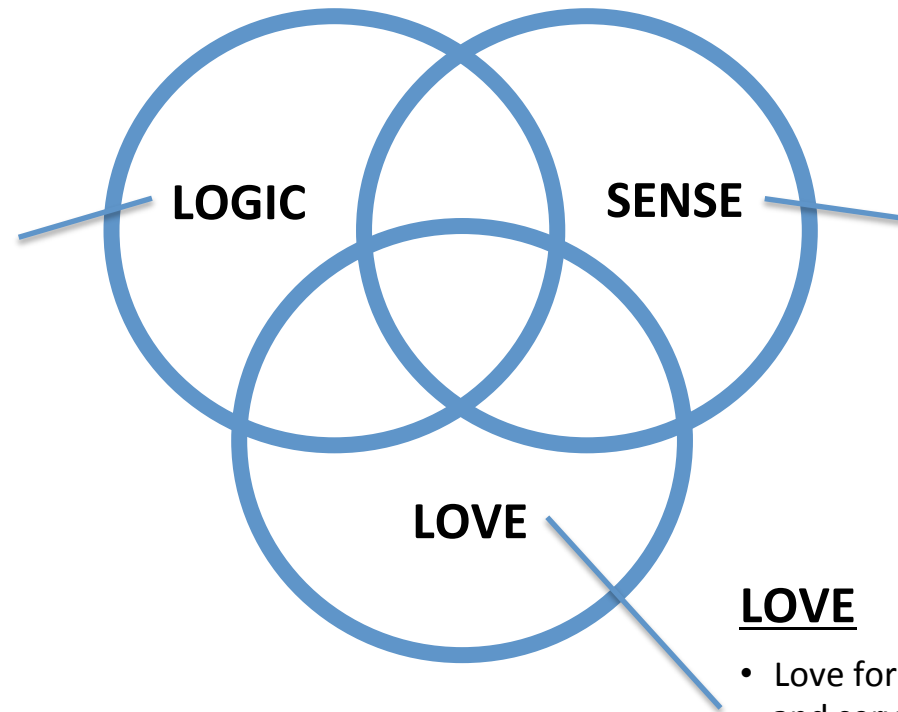


3 factors of design: LOGIC/SENSE/LOVE

- We introduced three essential factors of design:

LOGIC

- Logical thinking and communication
- Logical estimation of profitability
- Logical investment decisions



SENSE

- Strong empathy for customers' unmet needs, pains and gains
- Sense for integrating what he/she experienced into insights
- Sense of story telling

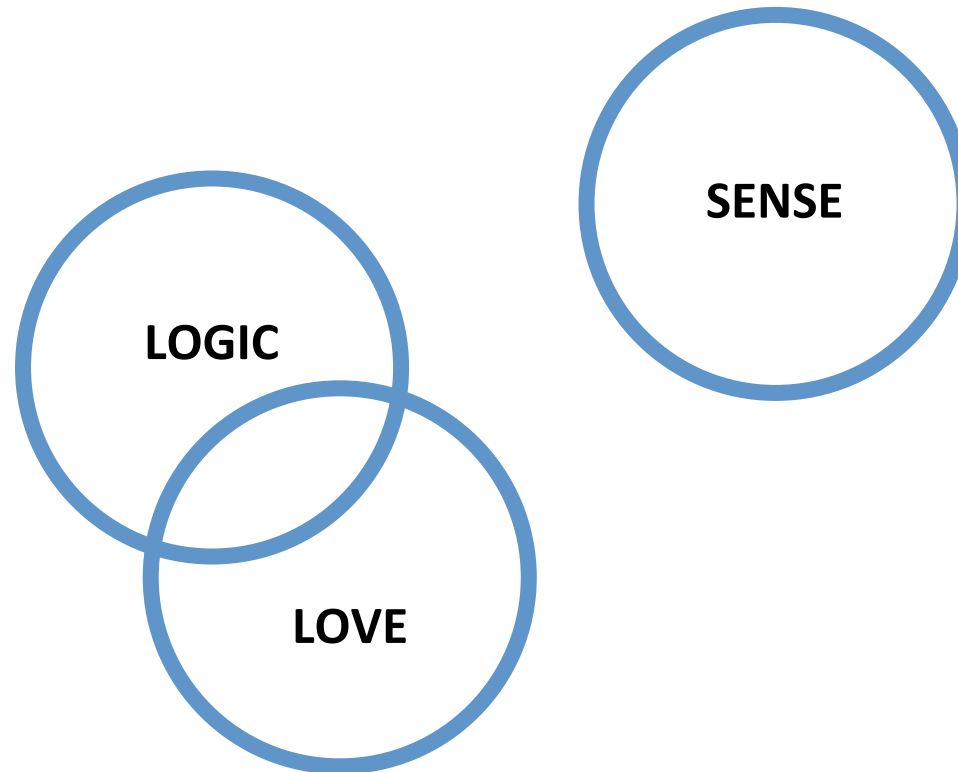
LOVE

- Love for customers, products and services
- Strong belief on what he/she is doing

“Design Management” by Manabu Tago, Hiroko Tago, and Hiroshi Hashiguchi

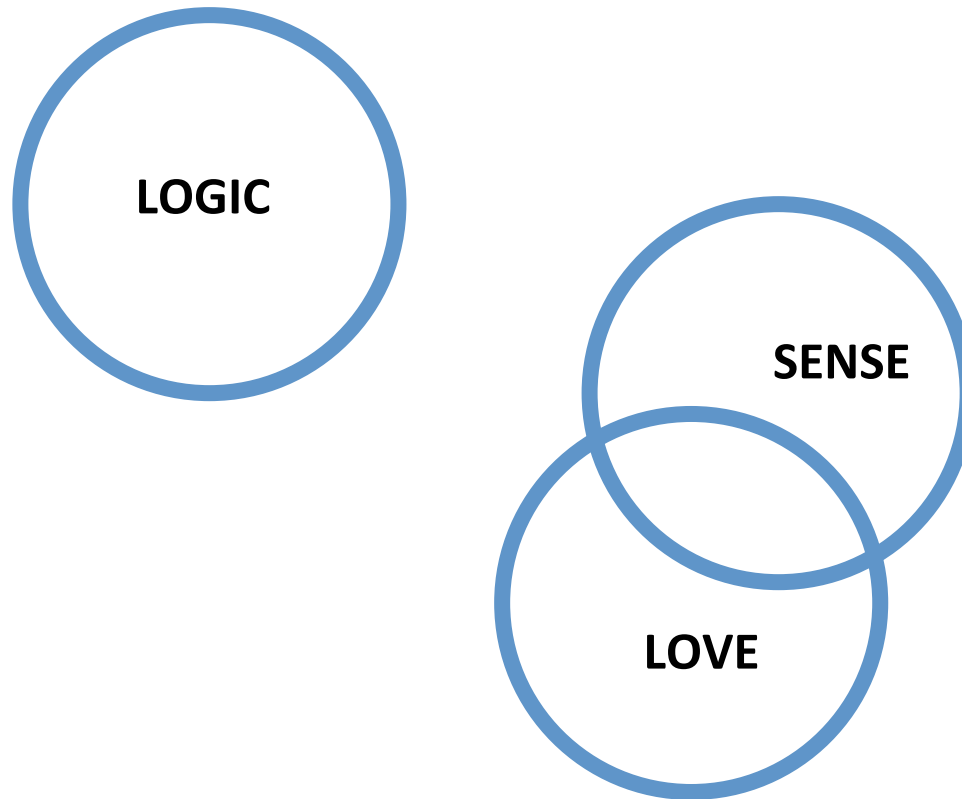
Typical Problem #1

- Less SENSE
- Highly seeds-driven, but few empathy for customers



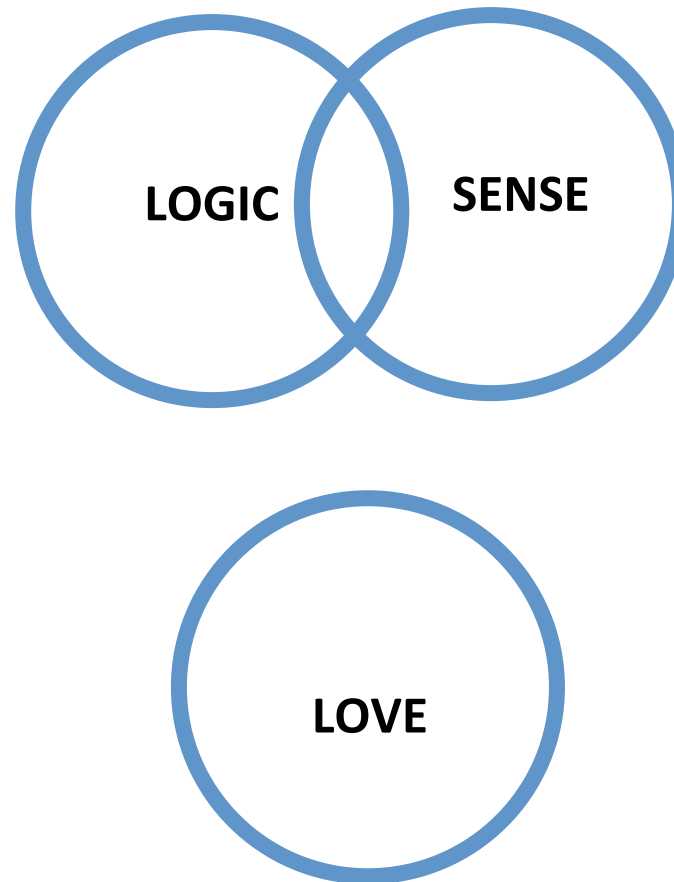
Typical Problem #2

- Less Logic
- Good looking, artistic, high quality, but not sustainable in terms of profitability



Typical Problem #3

- Less LOVE
- Starting business only because it looks hot and profitable.



ミニマムにして、マキシマム。

いま、「うつわ」にできること。OSOROはこの問いかけから生まれました。
 テーブルを明るく彩るのほもちろんのこと。あらゆる人へ、食を通して豊かな暮らしを届けたい——それが、私たち NARUMI の使命です。
 そのうつわを使うことで、食生活が健康的になり、時間のムダがなくなり、地球環境にも配慮できたなら、どんなに幸せなことでしょう。
 OSORO がめざすのは、まさにそんな暮らしのありかた。誰もがもっとスマートに、愛する人との時間を大切に、社会貢献に貢献していく——、
 必要最低限のコンパクトなツールで、最大限に幸せな暮らしを叶えていく。OSORO からはじまるさまざまな“気づき”が、ここにあります。



save space



save water



save energy



save time



省スペース

OSORO のデザインの特徴は、なんといっても驚異的なスタッキング能力。食器棚いっぱいのおうつわを OSORO に換えれば、なんと 3 分の 2 もの収納スペースが、料理のジャンルを選ばないスタイリングで、和洋中の食器選びのお悩みも、もうありません。

Economizing space

The characteristic of OSORO's design is its overwhelming stacking capability. With OSORO, even for a cupboard full of dishes, it will give you an extra 2/3 of space. Styled so it does not limit the genre of food you serve, you don't have to keep acquiring different types of dishes such as Japanese, Western or Chinese.



節水

OSORO なら、食材の保存や調理、盛り付けもこれひとつで OK。野菜をゆでるために大量の水を使う必要もなく、洗いが驚くほど少なくなります。食器洗浄機を使えば、さらに節水。食事汚れの落ちやすい新素材の採用で、驚異的な節水効果を発揮します。

Conserving water

With OSORO, you really only need one of these types for stocking, cooking and serving food. There is no need to use large volumes of water to boil vegetables or only require surprisingly small volumes for washing up. If you use a dishwasher, you can conserve even more. By adopting a new material so the food remains do not stick, it shows surprising effects to conserve water.



CO₂ 削減

ご存じでしたか？ 電子レンジでの調理はガスに比べ、大幅に CO₂ の排出量を減らします。その削減率は、根菜では 50%、葉野菜や果菜はじつに 65%！ さらに、OSORO のシリコンアイテムを使えばラップも不要。ゴミを増やさず、地球環境に貢献できます。

Cutting down on CO₂

Did you know that you could cut down drastically on CO₂ emission when cooking with a microwave than with gas? You can cut back 50% with root vegetables and a surprising 65% with leaf and fruit vegetables! Moreover, by using OSORO's silicone items, there is no need for plastic wrap. Having less trash to deal with, you could help save the green environment.



時短

これひとつで、食に関わるあらゆるシーンに活躍する OSORO。手洗いや洗いの時間を減らすなど、各シーンの時間短縮から、ゆとりの時間が生まれます。忙しい現代人の暮らしを、心から健康までサポートするパートナーになりたい。OSORO からの願いです。

Saving time

With only one of these, OSORO can help in all food scenes. By cutting down on procedures and washing up, you can save time in each scene, which allows you more time to spare for yourself. OSORO can be the perfect partner for busy contemporaries, supporting their health in the mind and body. This is our wish.

For a minimum and maximum

LOGIC

What is there to be done now regarding tableware...

Of course, it can make your table colorful. Through food, it is our desire to make life a richer one for many people. Wouldn't it be wonderful, if by using this dishware, your food life could be made healthier, unconsciously wasting less and it being environmentally friendly. That is exactly what OSORO is aiming for, exactly that kind of lifestyle. If everyone could be smart, and could cherish the time spent with your loved ones, and could awaken to the importance to the earth's environment—, Being compact as a minimum tool, we can maximize your happy life. Begin to experience a certain consciousness with OSORO.



「食卓をめぐる“不合理な真実”」

たくさんの“便利”に支えられた、私たちの食生活。
しかしそこには、自分でも気づいていない余計な手間やデメリット、
経済や環境にとっても多くのムダが、まだまだたくさん残されているのです！
名付けて「あなたの知らない“不合理な真実”」。直撃取材をお届けします！



取材「こんにちは！暮らしのそのも**意外なムダ**を徹底追求、毎日の家事をもっとスッキリさせよう！というこの企画。今日は、東京都にお住まいの不知火真実（しらのまこと）さんのお宅にお邪魔しました！」

不知火「よろしくお聞きします。私なりに暮らしのムダをはぶきながら、**社会や環境に貢献**したいと思っています。少しは気を使っているほうだと喜んでますか……」

取材「たとえば？」

不知火「毎朝、子どもや夫にお弁当を作るとき、お肉に下味を付けて冷凍しておいて、すぐ料理できるようにしておけば、手早く簡単だし、まな板や包丁など、洗いのものも少なくて済む……とか？」

取材「それで冷凍庫にお肉がごんごんに**すごい量のタッパー**ですね！」

不知火「ええ。何か使い回しが効くので、棚の中にもはら。いつも整理を心がけています」

取材「これはすごい！でもこんなに積み上げちゃって、下のほうとか取り出しにくいんですか？あ！シリコンスチーマーとか、レンジ用の**調理器具や便利グッズ**がたくさんホコリをかぶってる。これ、ほとんど使っていないんでしょう？」

不知火「でも、ふと思い出して使いたくなるかもしれないじゃないですか！お皿もそうだけど、調理器具を集めるのが好きなんです！」

取材「わ。見てください、この**フライパンや鍋の敷**！プロ顔負けのコレクションですね！」

不知火「それはどでもないけど（笑）。でも、冷凍した食材を電子レンジで解凍して、フライパンや鍋で調理しながら、もう1品作りたい……って思うと、道具って**いくつあっても足りない**な、って思いませんか？」

取材「**食器箱も溜積**だ！すぐ積み上がってくるけど、この大きいのが、ちゃんと使いこなしてますか？」

不知火「それはホームパーティ用に……もう何年もやってないけど。あと、私は洋食が好きなのに、夫が和食好きで、洋食器と和食器ってうまく積み重ねられないじゃないですか。だから食器箱がもう溜積で、こうやって**見せ収納**してます」

取材「はんとだ！まるで“うつわタワー”（笑）。でもこれだけお皿があると、洗いのものもたいへんでは？あ、食器洗浄機が物置きと化してる！」

不知火「あっ（驚）。**食洗機の方が節水**になるのは知ってるけど、お皿が多すぎて……。でも、まとめて自分で洗ったほうがいいかな？って、ダメですか？」

取材「わお。冷凍庫の中もいっぱい！これは……昨日の残りのおかずですね。このポリウムは、あと3日ぶんはあるのでは？」

不知火「つつい、多く作り過ぎちゃうんです……。それで、今度は**冷蔵庫がいっぱい**になっちゃって」

取材「しかも、せっかくなのでラップでベシヤンコ。それを子にしてまた夕食に？」

不知火「夫はいつも残業で遅く帰ってくるので、いつもそうする。食べながらよく**“わびしい……”**って

つぶやいてるけど、しょうがない（汗）

取材「**タッパー**があればあるんだから、移してあげばいいじゃないですか、**ラップ**を使い捨てるのも、環境にはよくないですよな？」

不知火「だって移し替えるのが面倒だし、洗いのだって増えるし……。子育てで家事でじゃぶじゃぶ忙しいので、**これ以上、手間をかけたくない**んです！でも、子どもの未来のことを考えると、**何かしなくちゃ**って思う。って、わがままですよ（泣）

取材「いえいえ、よくわかりますよ！だからこそ、こうやって毎日の生活を振り返って、知られざる**“不合理な真実”**に気づくことが大切なんです。ではどうしたらいいか？それを一緒に考えていきましょう！」

（※この4ポ企画はフィクションですが、みなさんの実生活へと続きます）



The “Inconvenient Truth” around the dinner table

Our food life is supported by many “conveniences” .
Yet there are many unnecessary procedures, demerits and ineffectiveness to the economy and environment that you do not realize!
So here, is an interview to give you an idea of the “inconvenient truth” you might not know of!

Interviewer: “Hi! We’re here to investigate the unexpected ineffectiveness hidden in your lives and to clear the way in performing daily chores. Today, we are visiting the home of Mami Shiranui who resides in Tokyo!”

Ms. Shiranui: “Hi, I believe I try to live my life without being too ineffective, while supporting society and the environment. I think I’m pretty conscious about it……”

Interviewer: How would that be?

Ms. Shiranui: Well, every morning, when I make box lunches for my kids and husband, I marinate the meat and freeze it so it can be cooked right away. It can be quick and easy, and I don’t have to clean the chopping board and kitchen knife……

Interviewer: So that’s why you have so much meat in the freezer. Wow, there are so many food containers!

Ms. Shiranui: Yes, it can be quite useful. Look here on the shelf. I try to be organized.

Interviewer: Wow, that’s great! But you have it stacked up so much. Isn’t it hard to get something at the bottom? Oh, a silicone steamer, microwave cooker, and many

convenient tools that are collecting dust. You hardly ever use them, right?

Ms. Shiranui: Well, I might just decide to use it one day! Not just plates, but I like collecting kitchen tools!

Interviewer: Oh, look here. You have so many frying pans and pots! You’re collection’s like a professional cook!

Ms. Shiranui: Well, not that much (she’s being humble). But defrosting the frozen food in the microwave, and cooking it in a frying pan or a pot, and I decide to make one more dish…… then it’s never enough pans, don’t you think?

Interviewer: Your cupboard is full too! It’s stacked up so high. Do you ever use this big one?

Ms. Shiranui: Well, in case we have a dinner party…… Although we haven’t had one years. Also, I personally like Western food, but my husband likes Japanese, but it’s hard to stack plates for western dishes and Japanese dishes together. So my cupboard is so full, that I decided to show my ware like this.

Interviewer: Oh my, it’s like a tableware tower (surprised). But with all these plates, isn’t it hard to wash? Your dishwasher has turned into a storage lot!

Ms. Shiranui: Um, I know that you can conserve more water with a dishwasher, but I just have too many plates…… So I thought it might be better if I just wash it myself. Is this bad?

Interviewer: Wow, your refrigerator is full too! This one…… is yesterday’s leftover, right? From what it looks like, it seems you’re going to last at least 3 more days.

Ms. Shiranui: I tend to overdo the portion…… so I end up with a full refrigerator.



Interviewer: And your food is flat from the plastic wrap. Are you going to microwave it for dinner?

Ms. Shiranui: My husband is always late from work, so yes, that is what I normally do. He mumbles often that it doesn’t look so tasty, but then what can I do (slightly embarrassed).

Interviewer: You have so many food containers that maybe you can store. Using plastic wrap excessively is not good for the environment, is it not?

Ms. Shiranui: Well, it’s a hassle transferring it to different container, and you end up with more things to wash…… It’s busy enough taking care of the baby and doing the housework, so I’d rather it didn’t take too much of my time! But I do feel something needs to be done, especially when I think about the future of my children. Do I sound egotistic (she laughs)?

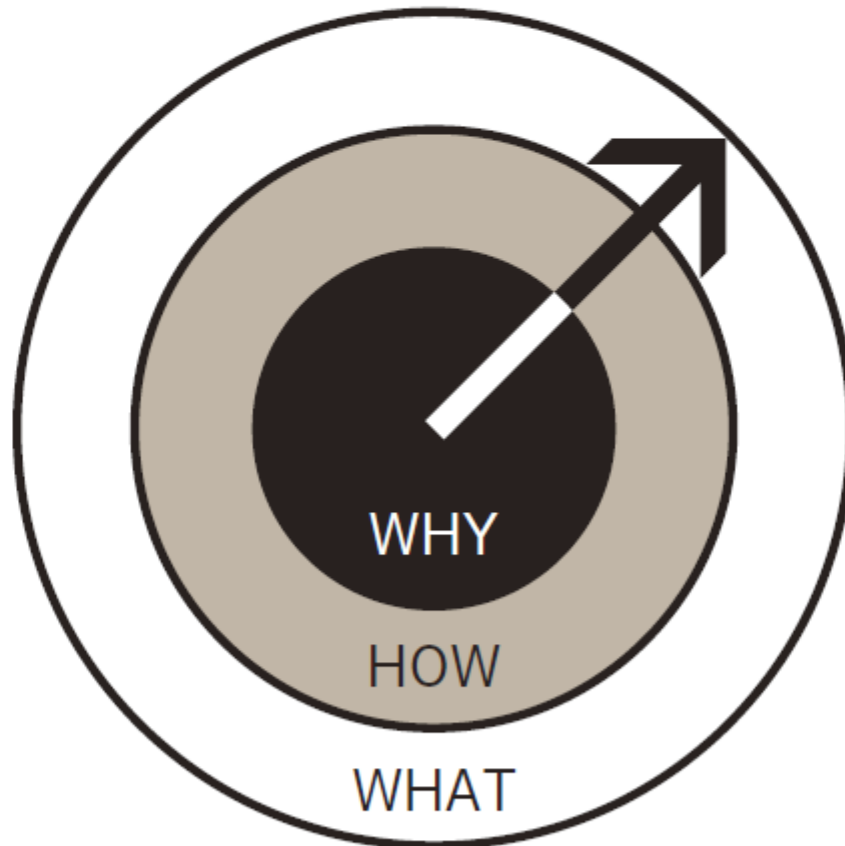
Interviewer: Oh, no, I understand! That’s why it’s important to glance back at your daily life like this to see the “Inconvenient Truth”. Now, what can we do? Why don’t we think about this together!

（* Although the interview is fictitious, it is based on real life experiences）



“Why?” of OSORO

Golden Circle



WHY

- Want make users happy
- Want alleviate customers' pain
- Want to contribute to energy saving

HOW

- High heat-resistance
- High dimensional control accuracy
- Smooth but tough glaze

WHAT

- Product “OSORO”

Contents

- **Entrepreneurship**
- **Business Model / Value Proposition**
- **Marketing / Growth**
- **Unit Economics /
Managerial Accounting / Finance**

Entrepreneurship

Hyper Uncertainty

- Entrepreneurs implement business under hyper uncertain environment.
 - love uncertainty
- Super high volatility is a great “chance” for entrepreneurs.
 - established players don’t like it
- Decent plan doesn’t have any value in many cases.
 - everything changes so quickly

Act against Inertia

- Entrepreneurs act against inertia
 - widely accepted rules in an industry
 - common business practice among existing players
- Don't follow what majority of people say
 - you will change rules of the game

Sense of ownership and Sense of urgency

- Entrepreneurs must have two senses:
 - Sense of ownership
 - Sense of urgency
- Put your hands on your business.
 - no one would take responsibility. YOU do.
 - no one would give a direction to you. YOU do.
- Take urgent action in anytime.
 - quickness/speed is the most powerful weapon for startups
 - “常在戰場”

Get things done

- Entrepreneurs must have “get things done” mentality
 - no implementation, no value
 - last one mile
- No one would get things done for you
 - do delegation, but don't put your hands off

Invest on Future

- Starting business is investing many resources on uncertain future:
 - time
 - money
 - effort
 - networks
- Investment is an exchange of two things:
 - Certain _____ at present
 - Uncertain _____ in future

Life of an entrepreneur is...

- risky and uncertain
- chaotic and unstructured
- troublesome and restless
- Insecure and unstable

but....

- Totally exciting and fun!!

Welcome aboard folks!!

Business Model / Value Proposition

What is Business Model?

- “A business model describes the rationale of how an organization creates, delivers, and captures value.”
 - Alex Osterwalder et al “Business Model Generation”

Business Model Patterns

- There are major business model patterns.
 - multi-sided platforms
 - the long tail
 - free / bait & hook
 - no frills
- Knowing existing business model patterns helps you.
 - a source of inspiration for your own work with business models

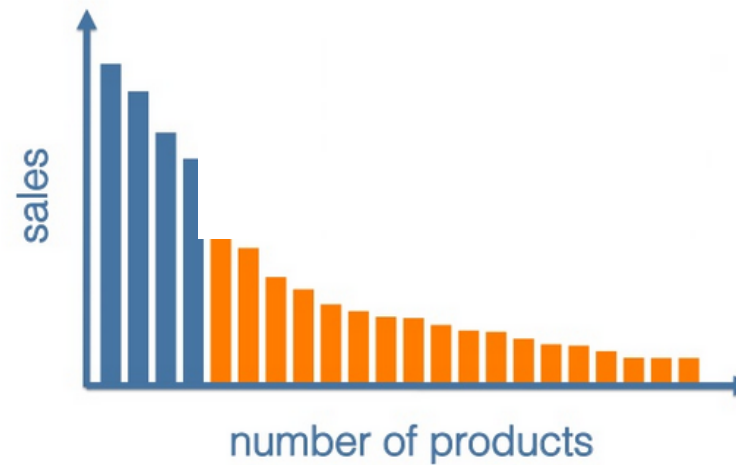
Multi-sided platforms

- Offers different solutions to different platforms
- Creates customer value to one group only if the other also presents.



The long tail

- Focusing on large number of niche products
- Internet made it possible
 - virtually no limitation of stock shelf and showcase



Bait & Hook (餌と釣り針)

- Offers a basic product or service at a very low price (the bait), and then taking profit from refills or associated products or services (the hook).
- Bait (photocopy machine) & hook (toner cartridge)
- Bait (T-shaped shaver) & hook (razor blade)

XEROX®



Freemium

- A derivative of “bait & hook”
- Free + premium
- Give away a core product for free and then generate revenue by selling premium products

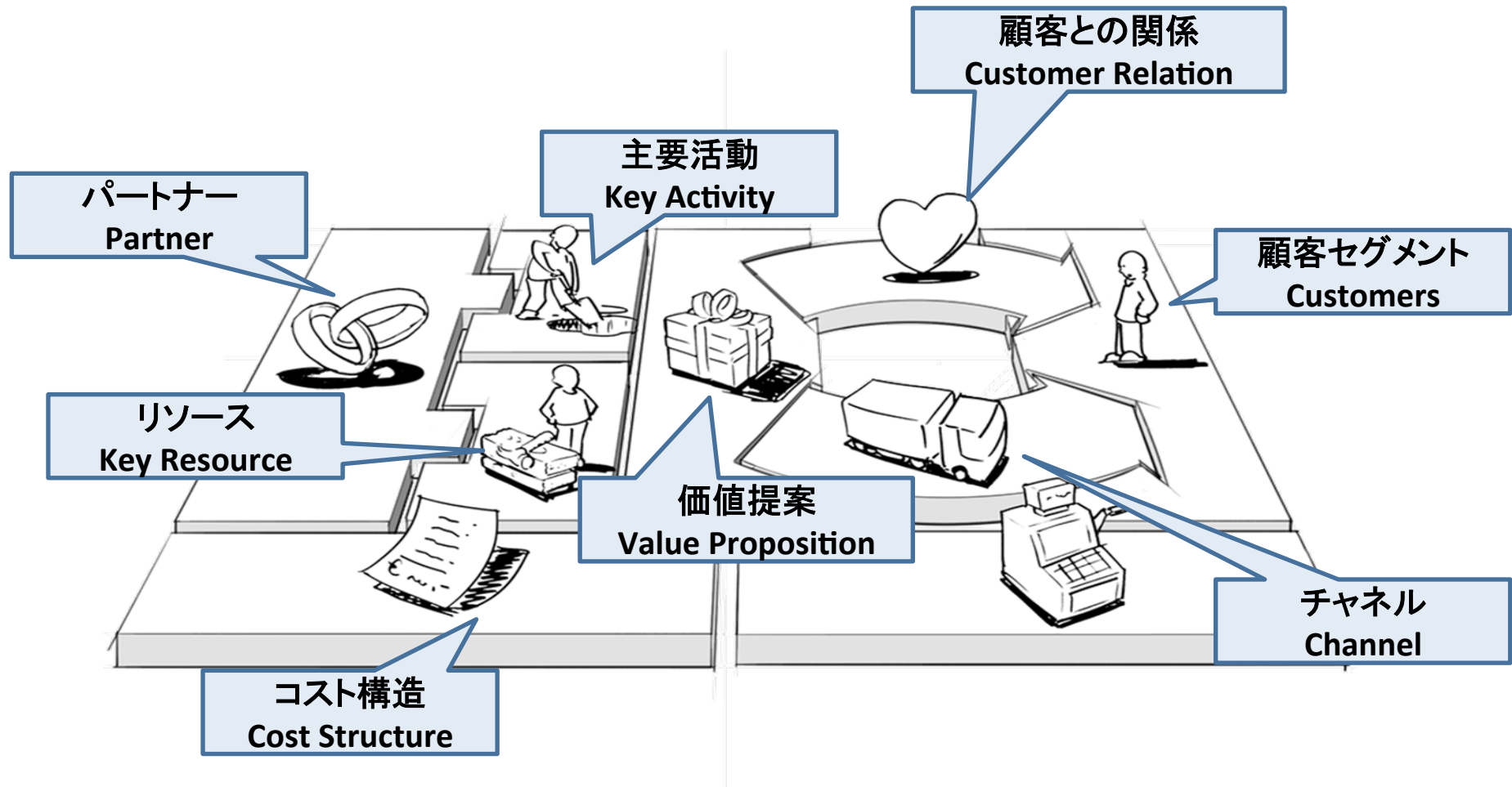


No frills

- Remove non-essential feature to reduce costs
- Operational excellence is needed to make it possible
 - 15 minutes turn of SWA
 - 10 minutes cut of QB house



Business Model Canvas

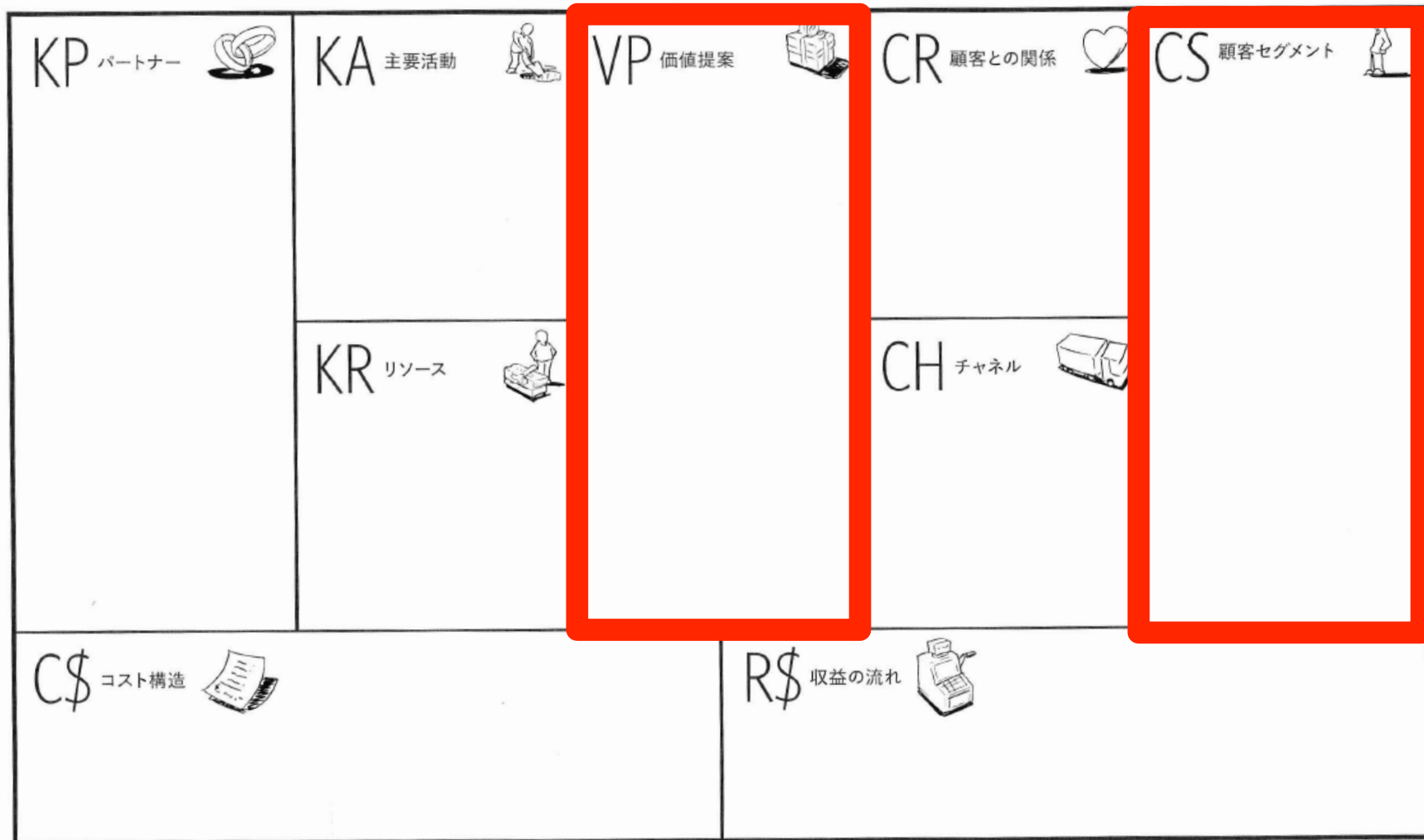


Business Model Canvas

- Business Model Canvas is a communication tool for describing, visualizing, assessing, and improving business models.
- It doesn't create any business model by itself, it's a communication tool
 - easy to collaborate
 - easy to look

Business Model Canvas

- Today, we focus on **Value Proposition** and **Customer Segments**



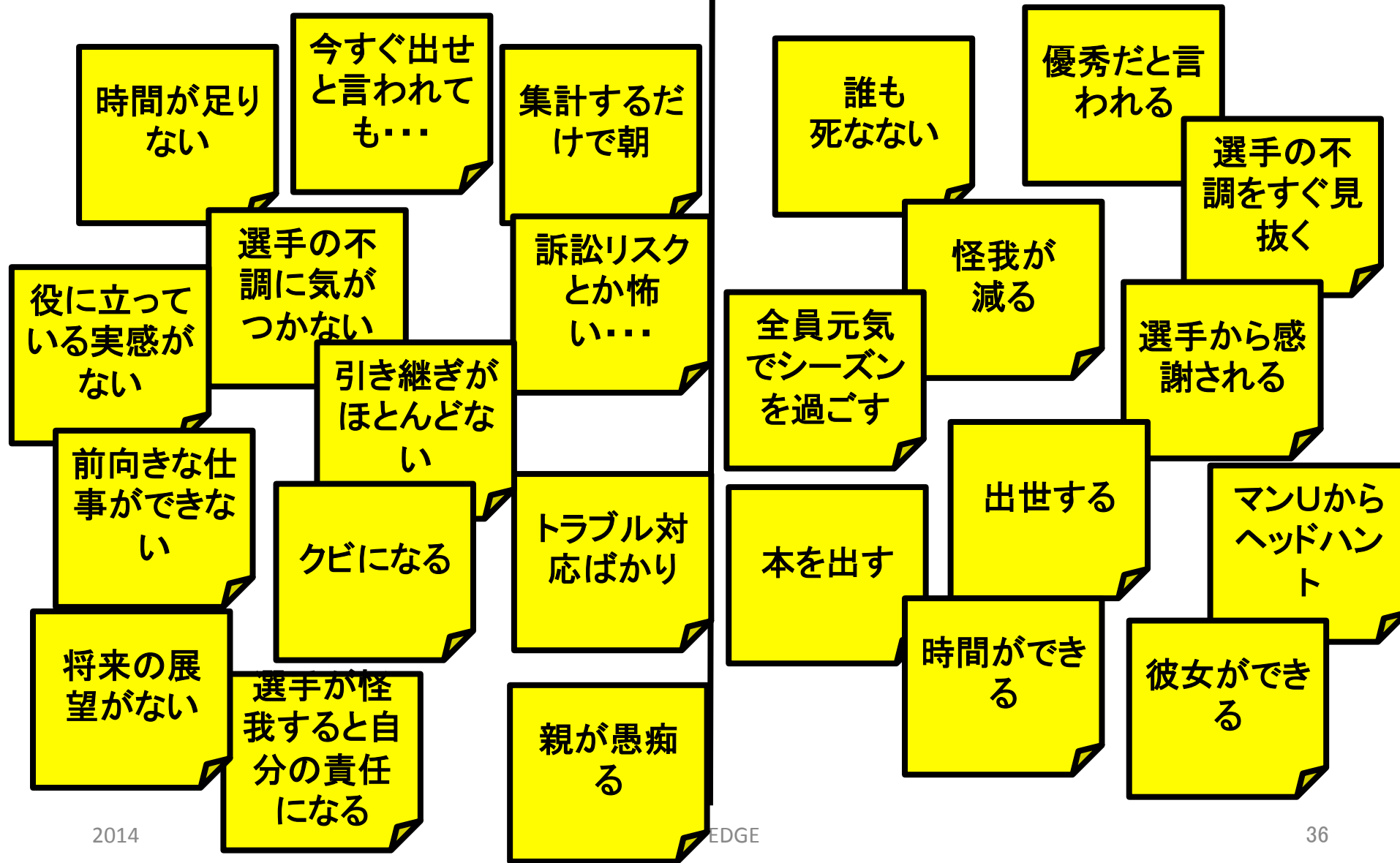
Customer Profile

- Select a customer segment you want to profile
- **Step into your customers' shoes**
- Identify customer pains
 - what pains do your customers have?
 - annoying things, problems, obstacles, risks..
- Identify customer gains
 - what do your customers want to achieve?
 - outcomes, benefits, savings...

Sample

Pains

Gains



Customer profile

- If you would have multiple customer segments, focus on a segment at one time.
- **Step into the customers' shoes.**
 - feel their pains and gains
 - feel their unmet needs
 - feel an empathy for them

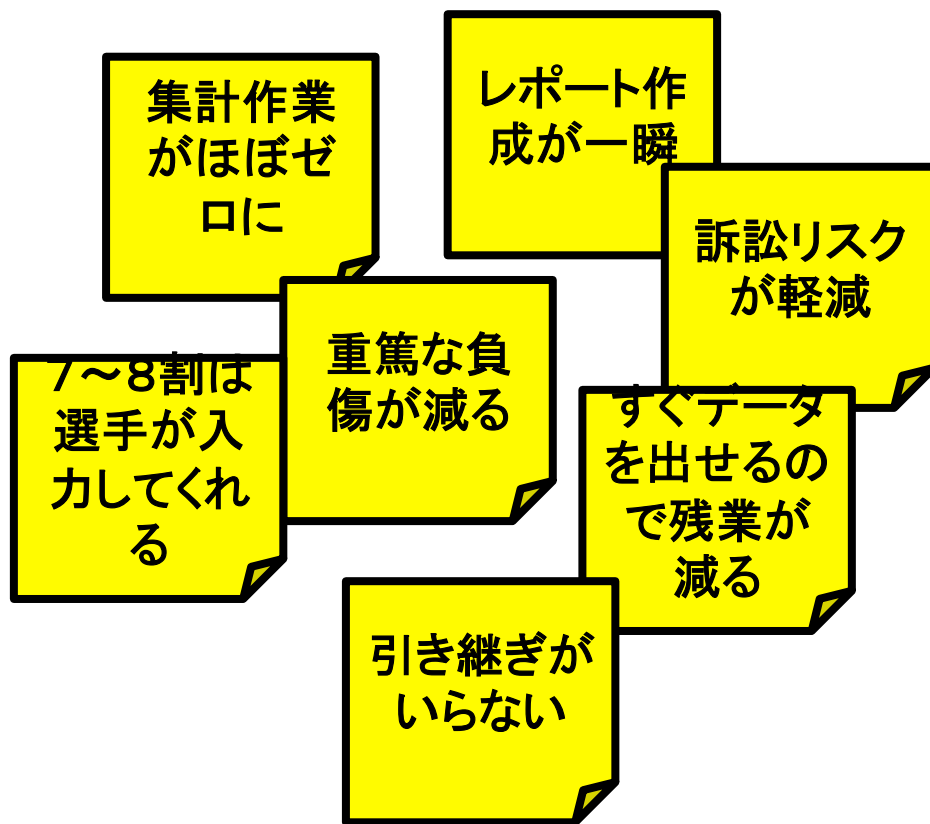
Exercise

Value Propositions

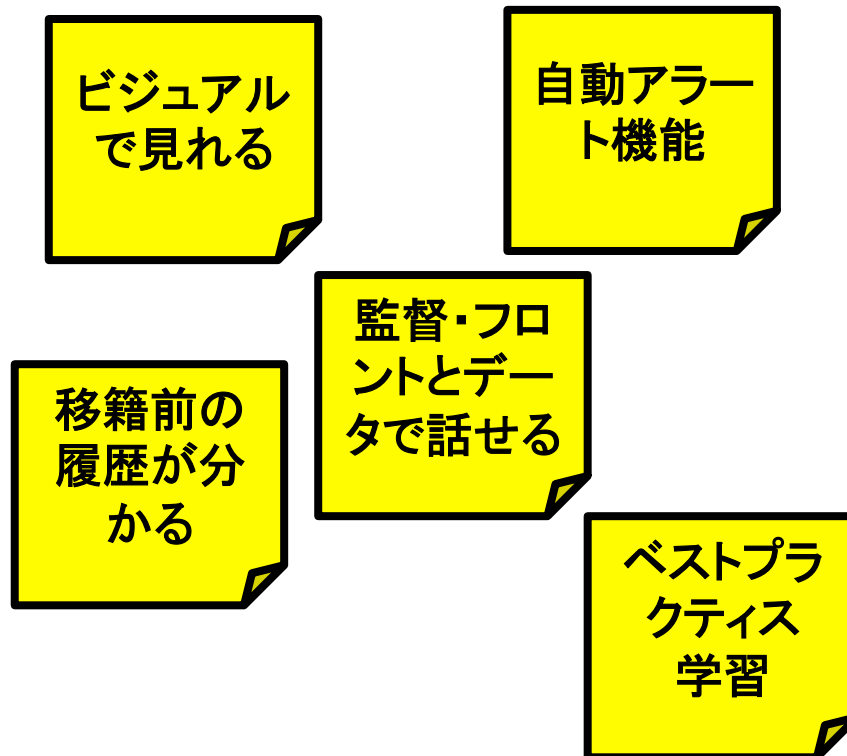
- Outline “**pain relievers**” your products and services will alleviate customer pains
 - Don’t need to alleviate every single pain
- Outline “**gain creators**” your products and services will provide
 - Don’t need to address every single gain
- Describe **Value Propositions** of your products and services
 - What value do you deliver to the customers?

Sample

Pain relievers



Gain creators

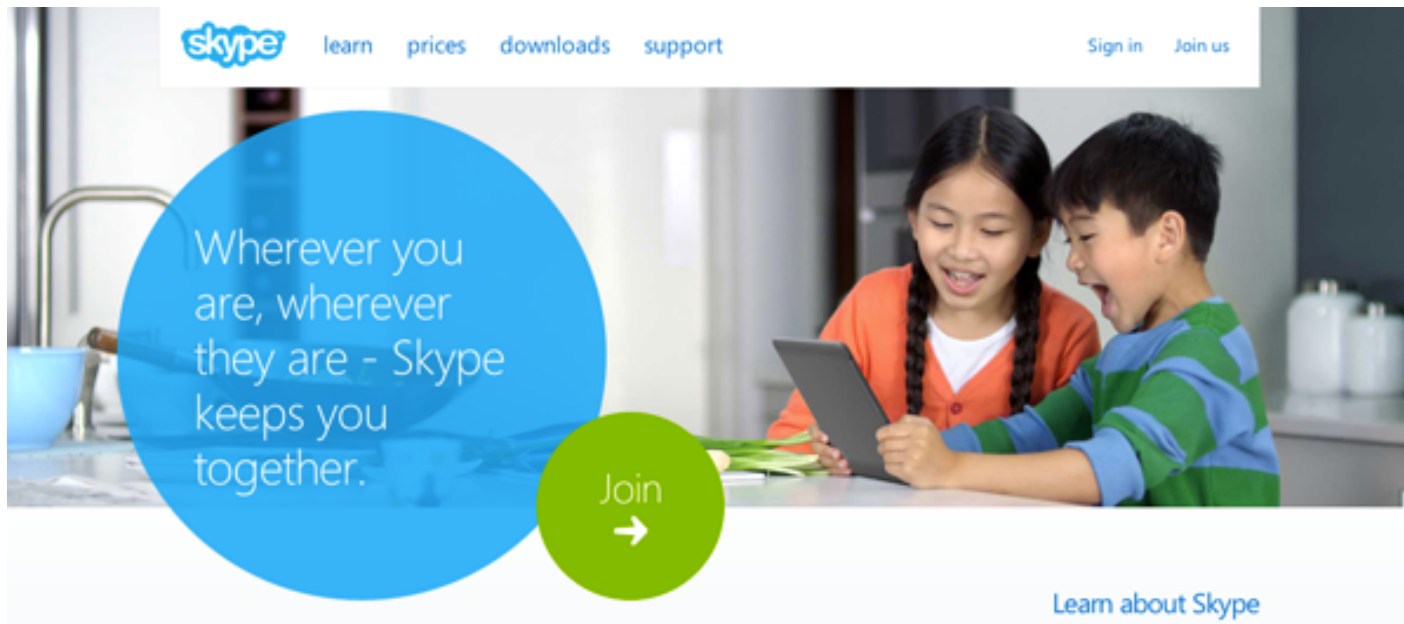


Square's Value Proposition




The image shows a screenshot of the Square website's landing page for credit card acceptance. At the top, there is a navigation bar with the Square logo, icons for 'Square Register' and 'Square Wallet', and a 'Sign In' button. The main content area features a background image of a hand holding a blue Visa credit card over a smartphone with a Square Reader attached. The text on the page reads: 'Start accepting credit cards today. Sign up and we'll mail you a free Square Reader.' Below this is a registration form with fields for 'Email address', 'Password', and 'Confirm password', and a blue 'Get Free Card Reader' button. At the bottom, it states '2.75% per swipe, no additional fees, and next day deposits'. The background image also shows a person's hand holding a smartphone displaying a payment screen with a total of \$31.21 and a keypad.

Skype's Value Proposition



Evernote's Value Proposition

Remember everything.




The graphic illustrates three core features of Evernote. On the left, 'Capture anything' shows a laptop with a shopping list, a recipe card for '2 teaspoons of salt', a voice recording icon, and a recycling symbol. In the center, 'Access anywhere' shows a tablet and a smartphone connected to a cloud icon. On the right, 'Find things fast' shows a search bar with 'salty ramen recipe' and a recipe card for 'Salty ramen recipe' with '2 teaspoons salt' and '4 bundles'.

Capture anything.
Save your ideas, things you like, things you hear, and things you see.

Access anywhere.
Evernote works with nearly every computer, phone and mobile device out there.

Find things fast.
Search by keyword, tag or even printed and handwritten text inside images.

 GET EVERNOTE - IT'S FREE ►

Value Propositions

- After describing your value propositions, ask simple questions to yourself:
 - Is it unique?
 - Is it easy to understand?
 - Is it difficult to copy?
- Even if a similar business model had already existed, don't be disappointed too much.
 - Can't you differentiate your model?
 - Can't you outperform rivals?
- Your pain relievers / gain creators do not need to solve all the pains and gains of customers.
 - Focus on extreme pains and essential gains

BMC = Business Plan?

- Do not use Business Model Canvas as a format of official business plan.
- It is an internal tool for discussion and creation.
- Use a business plan format for external communication, including a pitch to VCs

an example of business plan structure

Executive Summary

- ✓ Executive Summary

The Team

- ✓ Management profile

Mission Statement

- ✓ Vision, Mission and Values

The Business Model

- ✓ How Our Business Model Works
- ✓ Value Propositions
- ✓ Target Markets
- ✓ Key Resources and Activities

External Environment

- ✓ The Economy
- ✓ Market Analysis and Key Trends
- ✓ Competitor Analysis
- ✓ Competitive Advantages of Our Business Model

Implementation Roadmap

- ✓ Milestones
- ✓ Roadmap

Financial Analysis

- ✓ Breakeven Analysis
- ✓ Sales Scenarios and Projections
- ✓ Capital Spending
- ✓ Operating Costs
- ✓ Funding Requirements

Risk Analysis

- ✓ Limiting Factors and Obstacles
- ✓ Critical Success Factors
- ✓ Specific Risks and Countermeasures

Marketing / Growth

Marketing?

- There are a lot of definitions of marketing

“Marketing is the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods and services to create exchanges that satisfy individual and organizational goals.”
(AMA: American Marketing Association)

“The art and science of applying core marketing concepts to choose target markets and get, keep, and grow customers through creating, delivering, and communicating superior customer value”
(Philip Kotler and Kevin Keller)

“The aim of marketing is to make selling superfluous.” (Peter Drucker)

Marketing?

- Marketing is not about making decent plans
- Marketing is not about making hype or buzz
- Marketing (Market + ing) is comprehensive activities to make the business growth

- In order to spread your innovative idea, you have to make the business growth
- **Innovative idea + Growth = Innovation**

Where is your market?

- Typical questions from stakeholders:
 - “Where is your (primary/secondary) market?”
 - “How big is your market?”
 - “Is your business scalable?”
- You cannot target at all over the world from the beginning (because you are a small startup)
 - Define your primary market first
 - Get monopoly on the market and spread it to others

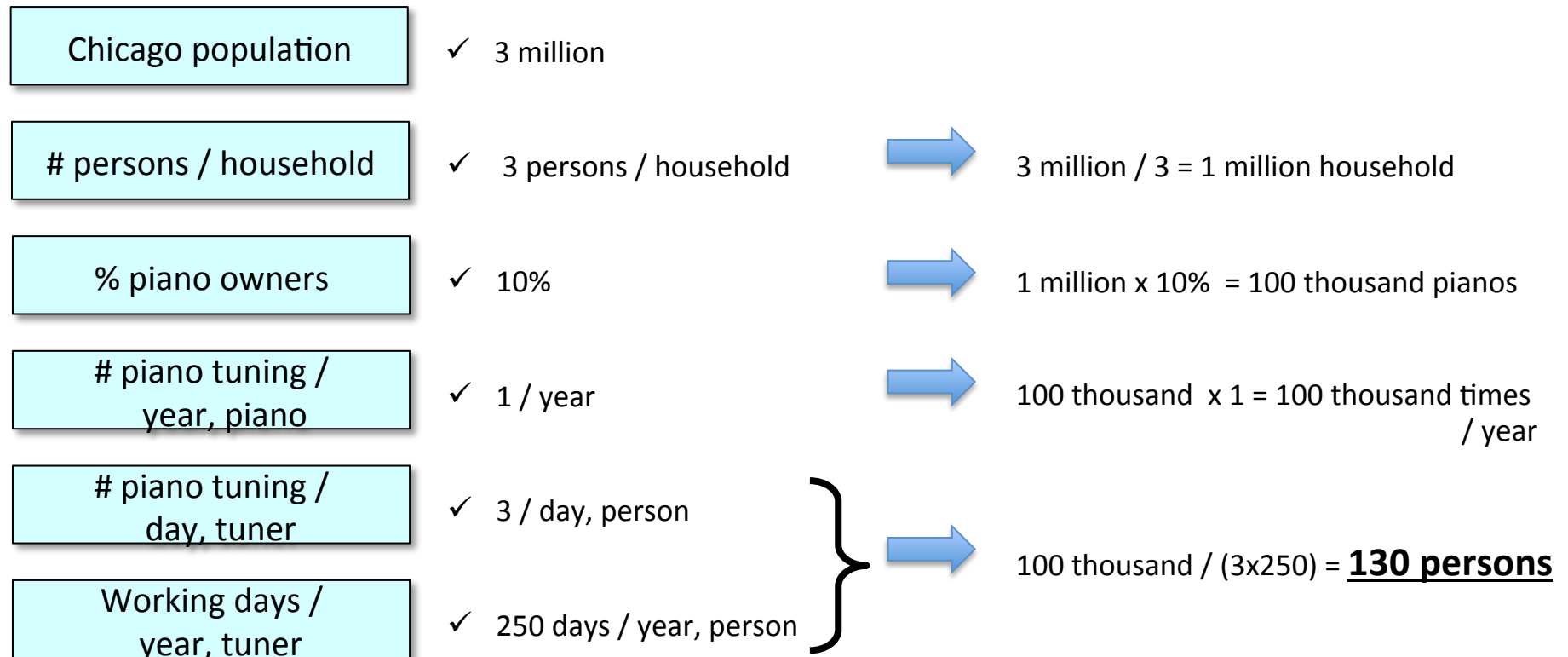
Exercise

Market Sizing

- Estimate the market size you are primary targeting at.
 - Accurate estimation is impossible.
 - Use “Fermi estimate” as your best effort.
- Moneywise sizing is preferable, but population-wise sizing is ok too.
- Jot down your estimation process including all the hypothetical numbers so that you can update them later on.
- Once you finished market sizing for primary market, do it for secondary market.
 - Don’t target at all over the world.
 - Be realistic.

Sample of Fermi estimate

Q: How many piano tuners in Chicago?



Knowing your market

- You should know your market well.
 - size
 - trend
 - customer profile
 - other players
- You should know:
 - how competition in your market is fierce
 - how market environment is attractive for your business
- So many people focus only on their own resources (strength and weakness), but ignore other players.

Competitiveness

- Do not get into hyper competitive market
 - avoid a war of attrition
- Differentiate yourself from others
 - build unique and innovative value proposition
 - change the rule of the game

Blue Ocean Strategy

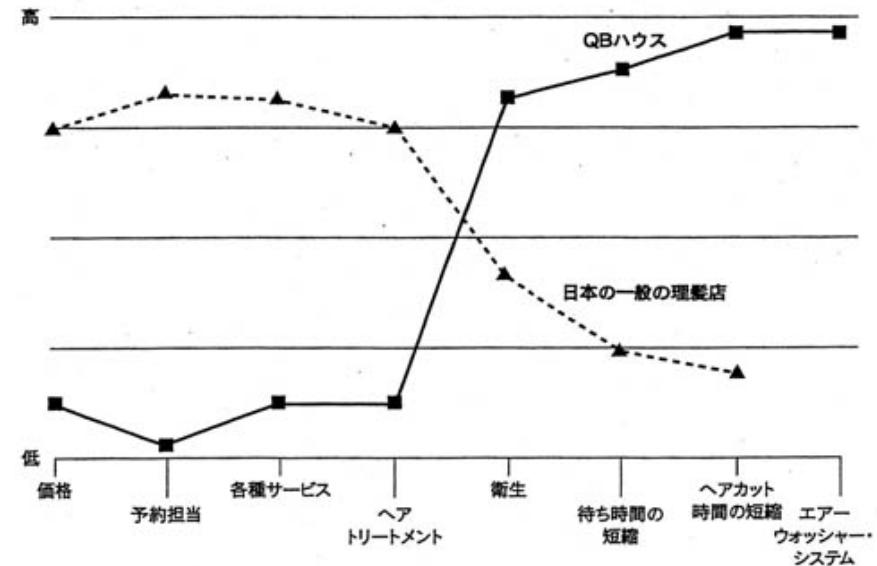
- Blue Ocean Strategy is about changing the industry's rule of game
- Differentiate yourself from existing players

Red Ocean?

- # players : approx. 130,000
- Market size : 700 bil. JPY
- Trend : shrinking longtime

(market of existing barbers)

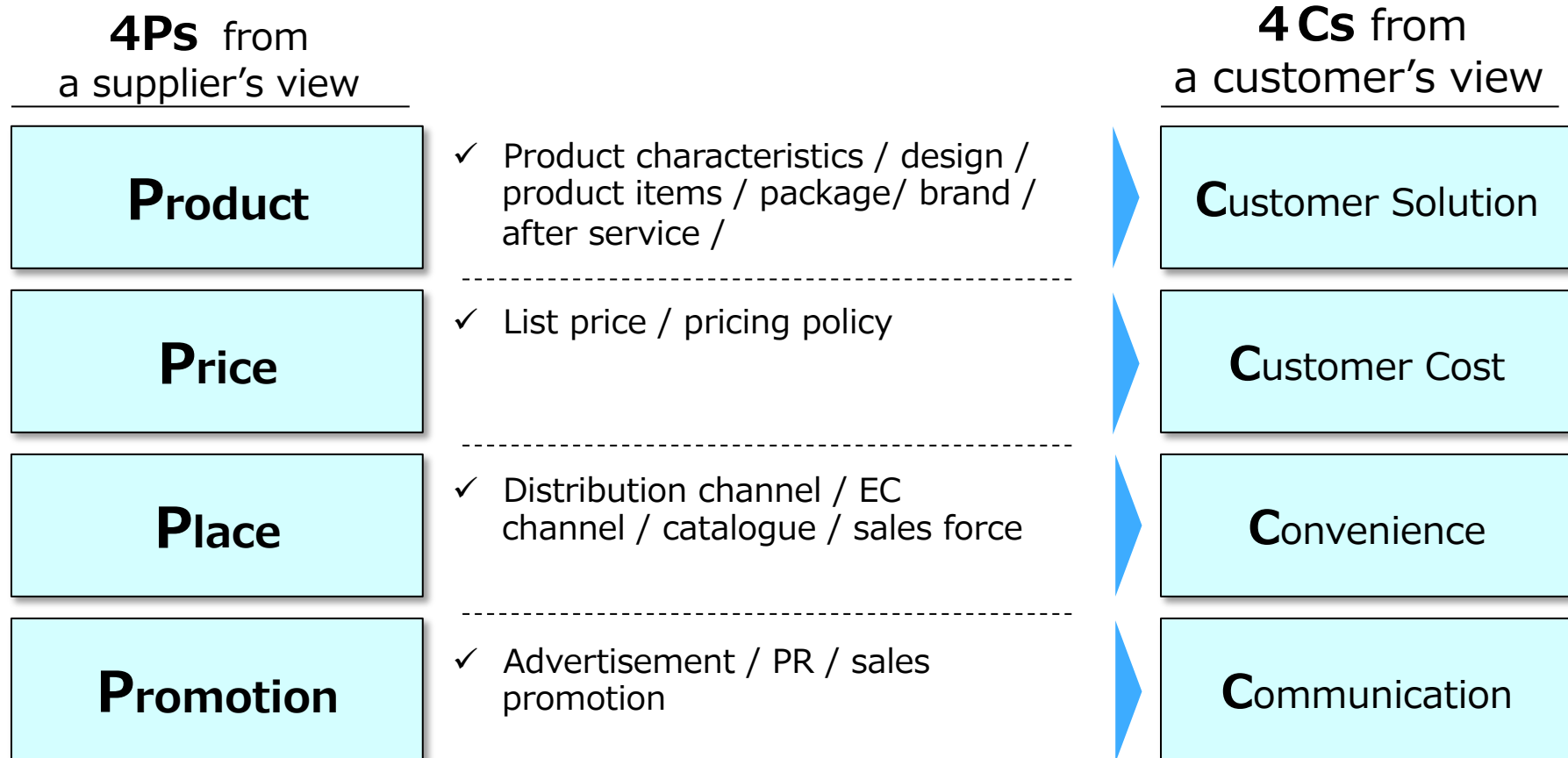
Blue Ocean?



or

Marketing Framework: 4Ps

- 4Ps is the most famous framework of marketing.



4Ps

- 4Ps is a classic framework for designing your marketing mix.
- It is not merely for planning but for implementation.
- Four factors are closely related each other.
 - If pricing would be changed, others would be changed.
 - If channel would be changed, others would be changed.

Consistency in every touch point

- We should deliver consistent messages via consistent tone and manners to customers.
- An inconsistent experience at a single touch point makes customers disappointed.
- That is why we need to share “why” among all the teams.

Design					
プロセス	組織、チーム	コンセプト	商品	顧客との接点	体験・ソリューション
デザインの対象	プロジェクトチームのミッションと権限	顧客の顕在/潜在的ニーズ: 欲求を満たすコンセプト	意匠 (色・形状など) 機能	パッケージ 売り場・接客 イベント	接点を通じてユーザーに届ける体験・ソリューション
	内部メンバーや体制	コンセプトを通じて提供するソリューション		ブランドサイト、ECサイト、SNS	社会的な課題への貢献
	外部専門家や体制			マス広告	

商品の価値を顧客に伝える

出所: 「日経ものづくり」2014年12月号
Illustrated by MTDO

図1●新商品開発プロセスにおけるデザインの対象
商品だけではなく、組織・チーム、コンセプト、顧客との接点、顧客の体験・ソリューションなど、デザインの対象は広範に及ぶ。

【参考】日経ものづくり2014年12月 P114~P117



Why?



ものづくり SELECTION

一気通貫のものづくりを実現する

デザインマネジメント

第2回 橋口 寛 ● ユーフォリア代表取締役

商品の価値を顧客に確実に伝えるために

デザインマネジメントに取り組む上で、前提になるのは、「自分たちの現状と、それがこれからどう変化しようとしているのか」という現実を認識することだ。皆さんが携わっている事業はどんな状態だろうか。既存事業の成長は鈍化し、あるいは市場の縮小が続いて、その中で競争はますます激化しているという環境にいる人も多いのではないか。コスト削減や性能向上という今までの取り組みだけでは現状を打破できない、新しいアプローチが必要だと感じている人も多はずだ。

デザイン視点でのアプローチ

デザインマネジメントは、こうした状況において特に効果的である。これまでのやり方の改善ではなく、新しいやり方を生み出すための手法だからだ。「今までのやり方を、よりうまくやる」ことで現状を打破できないのであれば、「やり方そのものを変える」しかない。そのときにデザインマネジメントが役立つ。

デザインにそんな力があるのだろうか？ 皆さんは疑問に思うかもしれない。実は私もそうだった。私は技術者ではなく、大学院では経営学を

専攻した。デザインとなじみが薄い点では皆さんの多くと同じだと思う。メルセデス・ベンツ日本やアクセンチュアの戦略グループで仕事をした後、鳴海製陶(本社名古屋)の取締役を務めていた時に、私は約20人のデザインチームを所管することになった。その時の率直な感想は「困ったことになった」というもの。「デザインの勉強をしたこともないのに、デザイン担当役員を務まるのだろうか」と思った。

この感想そのものが、デザインを極めて狭義の範囲でしか捉えていないことの証左である。「デザインとは色と形を決めること」だという考えに捉われ、美術的なバックグラウンドがない自分には担当するのは難しいと考えていた。しかし、デザインマネジメントという手法を知ってから大きく変わった。意匠デザイナーでなくともデザインマネジメントを実施できるのだ。デザインとものづくり、もっと言えば経営はほぼ全ての領域にわたって分かちがたく重なり合っている。ぜひ、技術者もデザインマネジメントの指揮を執ってもらいたい

デザインマネジメントとは何か

デザインの視点を視野に据えた経営手法のこと。デザインの対象になるのは業種だけでなく、商品のコンセプトやビジョン、それを実現するための設計/技術、広告宣伝、さらにはプロジェクトの進め方やユーザー体験など広範囲に及ぶ。

と思う。以下、デザインマネジメントの具体的なプロセスを紹介したい。

組織・チームをデザイン

デザインマネジメントのカバー範囲は極めて広い。

図1に、新商品開発のプロセスにおけるデザインの対象を示した。ここでは便宜上、左から右への一方向の流れとして描いているが、実際のプロジェクトでは何度もコンセプトのデザインをやり直したり、組織・チームのデザインに立ち戻ったりする必要がある。大切なことは、デザインの対象となる領域が、意匠デザインにとどまらず、その前後に大きく広がっていることを頭に入れることだ。

最初にデザインの対象になるのは組織・チームである。組織・チームのミッションの設定や人選、付与する権限に加え、どれくらいの時間軸でミッションの達成を求めめるかなどがデザインすべき内容である。わざ

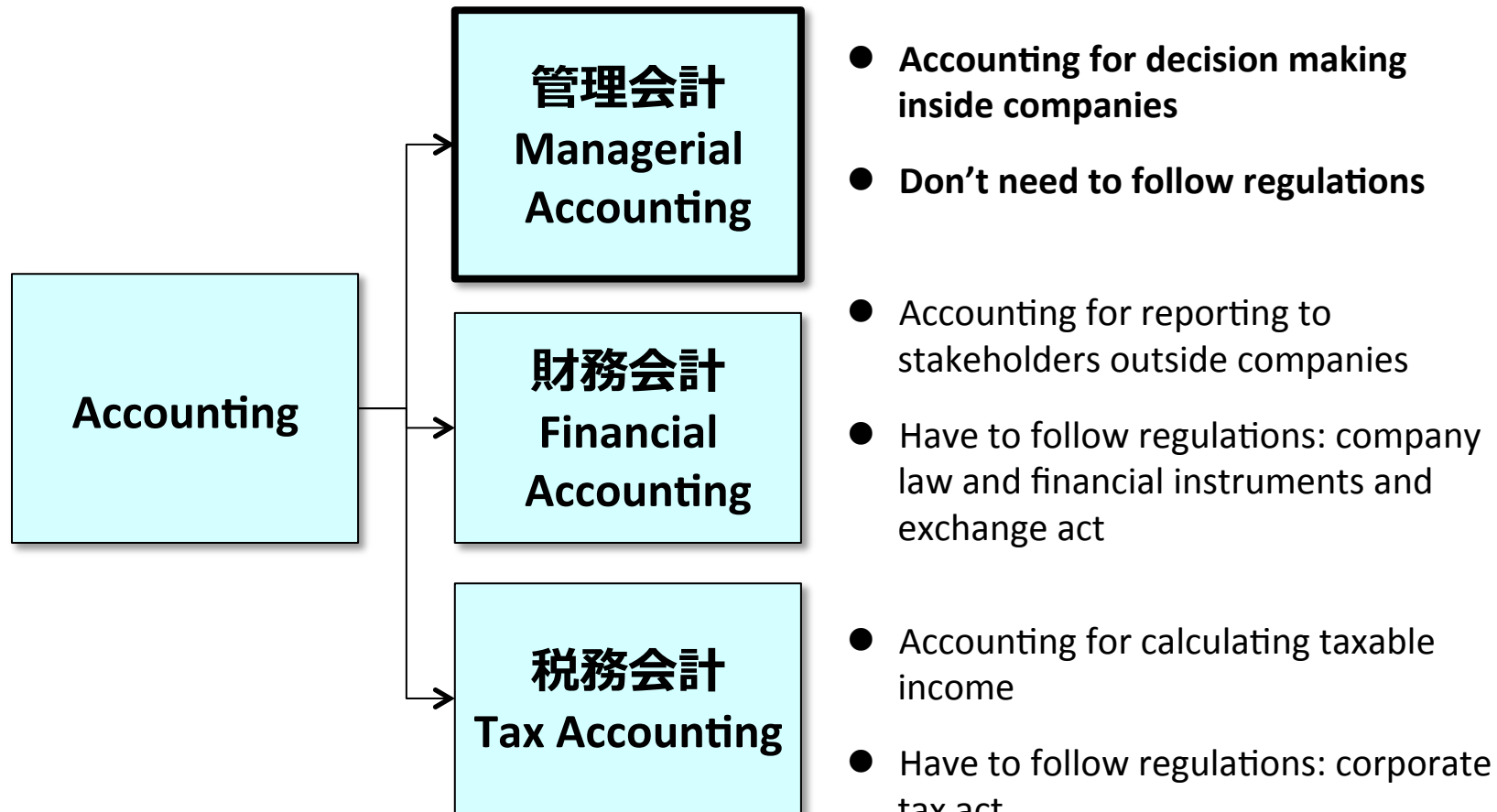
本コラムは、本誌が主催するセミナー「ものづくり設計」から厳選した実務情報を提供します。読者に加えて著者から直接学ぶセミナー情報も紹介します。「一気通貫のものづくりを実現するデザインマネジメント」では、田子孝氏、田子裕子氏、橋口寛氏が、ものづくりへのデザインの視点を切り入れ方やその効果を伝授します。

Unit Economics / Finance

Accounting and Finance

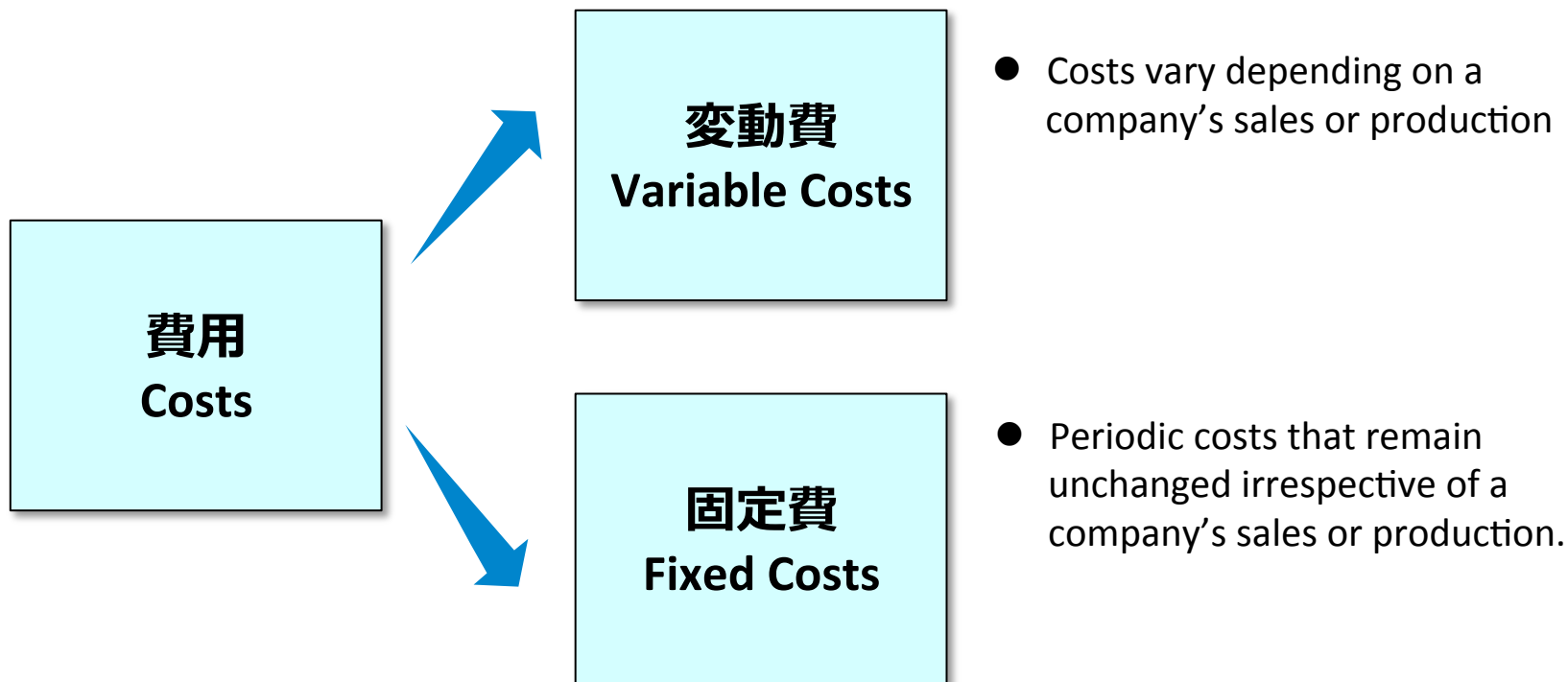
- Entrepreneurs need to be familiar with accounting and finance for;
 - making correct decisions
 - doing communications with stakeholders

Managerial Accounting

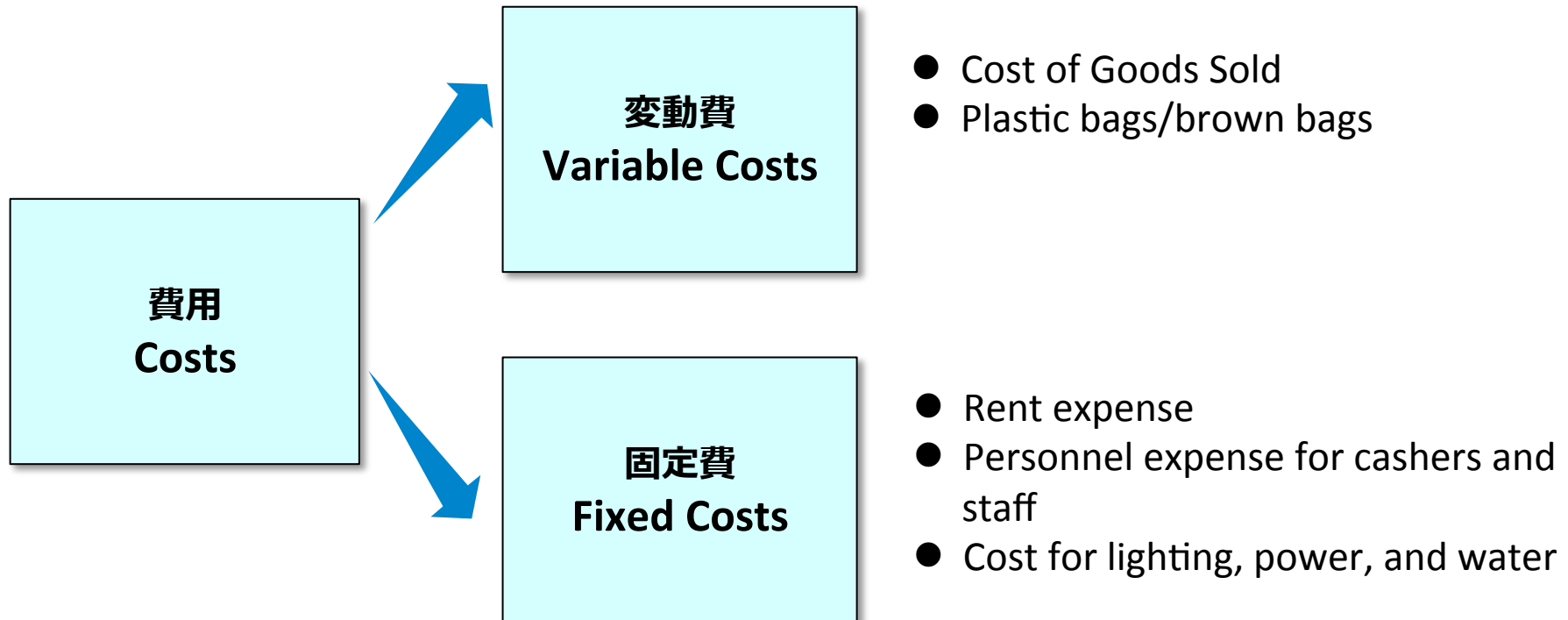


Cost behavior: variable costs and fixed costs

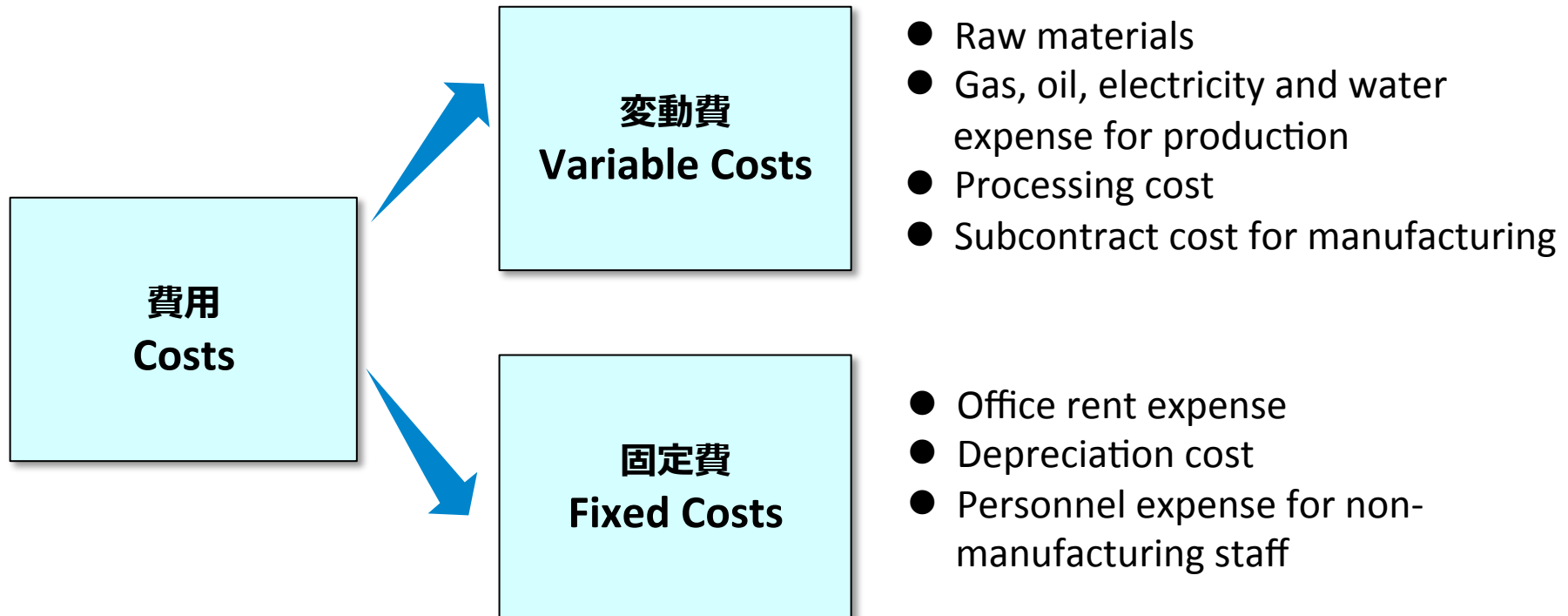
- Costs could be split into variable costs and fixed costs based on cost behavior



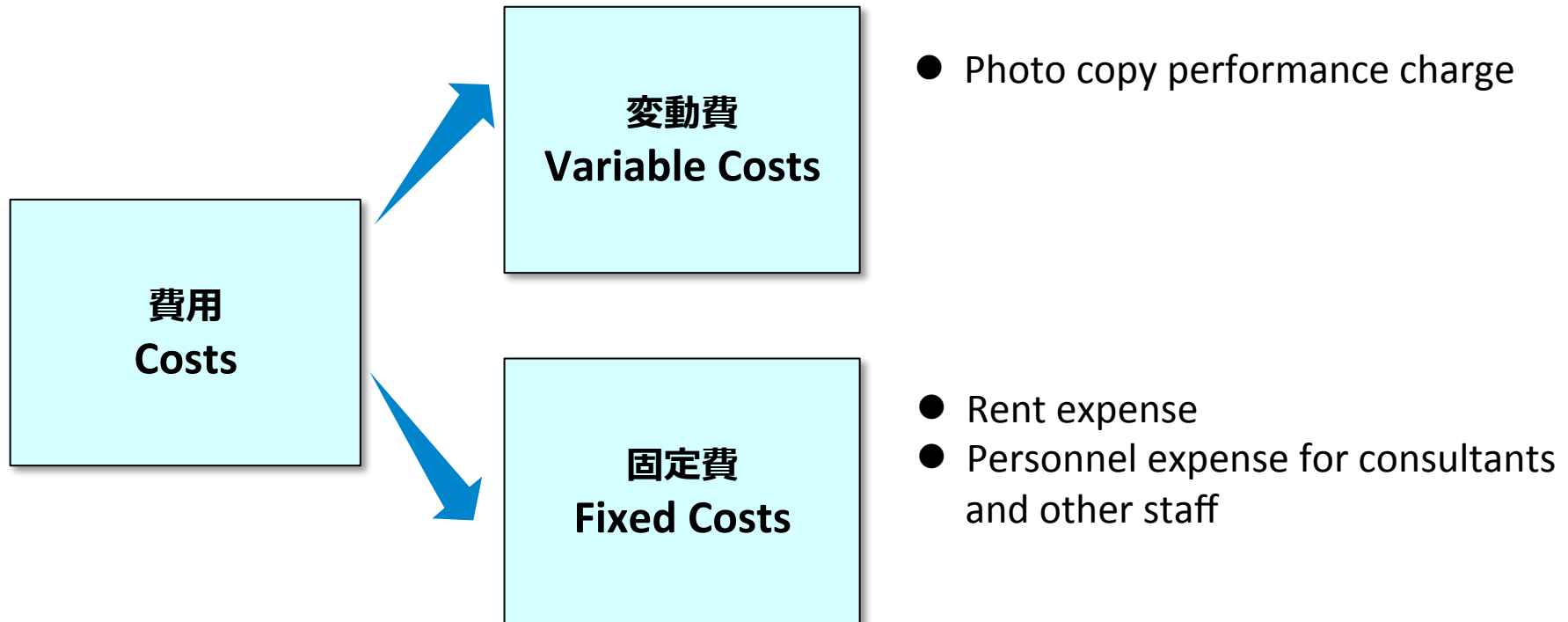
Example: supermarkets



Example: steel-manufacturing company



Example: Consulting Firm



Marginal profit

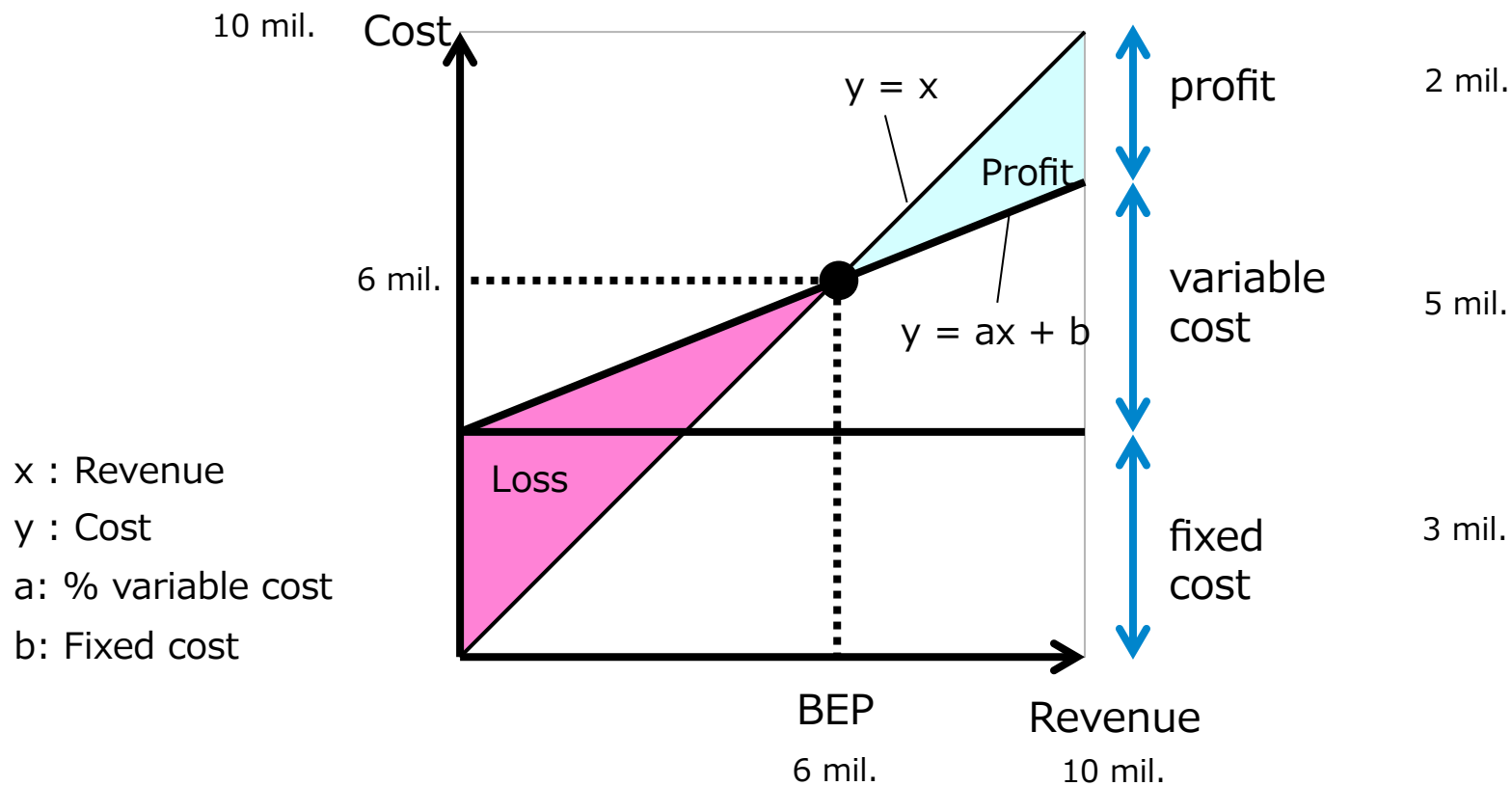
- After dividing costs into variable and fixed cost, you can calculate marginal profit.

$$\begin{array}{ccccc} \text{限界利益} & = & \text{売上高} & - & \text{変動費} \\ \text{(貢献利益)} & & & & \\ \text{Marginal Profit} & & \text{Revenue} & & \text{Variable Cost} \end{array}$$

Marginal profit changes depending on revenue/production increase or decrease

Break-Even Point

損益分岐点 = The point at which revenue equal to total costs (zero profit)
Break-Even Point =



Break-Even Point

- You can calculate break even point by using the following formula.

$$\text{Break-even Point} = \frac{\text{Fixed cost}}{1 - \text{variable cost ratio}} = \frac{\text{Fixed cost}}{\text{Marginal profit ratio}}$$

$$\text{BEP Revenue} - \text{variable cost} - \text{fixed cost} = 0$$

$$\text{Marginal profit} = \text{fixed cost}$$

$$\text{BEP Revenue} \times \text{marginal profit ratio} = \text{fixed cost}$$

$$\text{BEP revenue} = \text{fixed cost} / \text{marginal profit ratio}$$

Exercise

BEP calculation

Q:

Calculate break-even points of the following two companies.
(round the number)

Company A

- Revenue 100
- Cost 80
 - Variable cost 30
 - Fixed cost 50
- Profit 20

Company B

- Revenue 100
- Cost 80
 - Variable cost 50
 - Fixed cost 30
- Profit 20

ANSWER

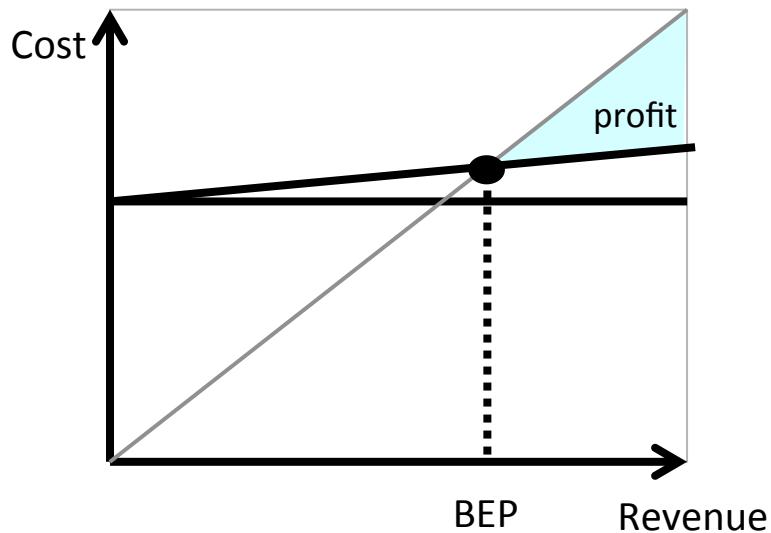
BEP calculation

Company A

Company B

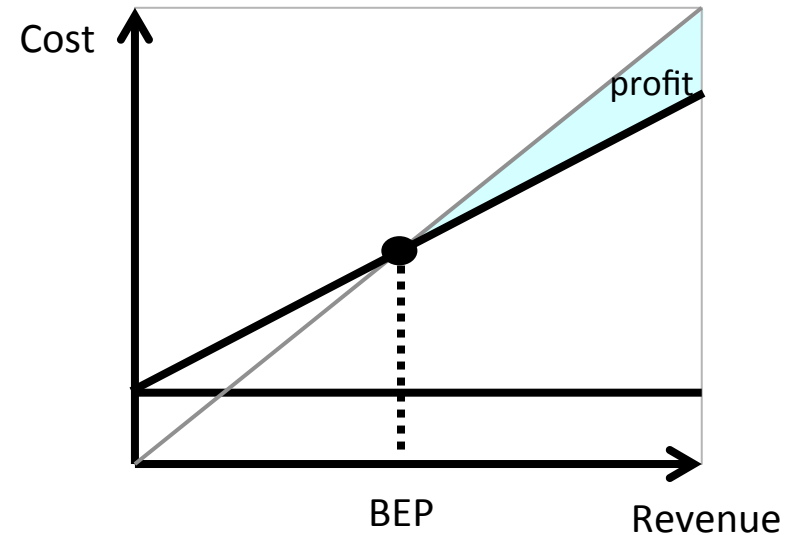
Cost Structure

High fixed cost/Low variable cost



- Higher BEP
- Once BEP is exceeded, you can enjoy higher profit

Low fixed cost/High variable cost



- Lower BEP
- After BEP is exceeded, you can enjoy only skinny profit

MQ(Margin-Quantity) Accounting

An Italian Restaurant Case Study

Unit Economics (yen)	×	Volume (persons)	=	Whole Economics (thou.yen)													
<table border="1" style="border-collapse: collapse; width: 100%; height: 100%;"> <tr> <td style="padding: 5px;">P 3,000</td> <td style="padding: 5px;">V 2,000</td> </tr> <tr> <td colspan="2" style="padding: 5px;">M 1,000</td> </tr> </table>	P 3,000	V 2,000	M 1,000			<table border="1" style="border-collapse: collapse; width: 100%; height: 100%;"> <tr> <td colspan="2" style="padding: 5px;">Q 1,000</td> </tr> </table>	Q 1,000			<table border="1" style="border-collapse: collapse; width: 100%; height: 100%;"> <tr> <td rowspan="3" style="padding: 5px;">PQ 3,000</td> <td colspan="2" style="padding: 5px;">VQ 2,000</td> </tr> <tr> <td style="padding: 5px;">MQ 1,000</td> <td style="padding: 5px;">F 800</td> </tr> <tr> <td colspan="2" style="padding: 5px;">G 200</td> </tr> </table>	PQ 3,000	VQ 2,000		MQ 1,000	F 800	G 200	
P 3,000	V 2,000																
M 1,000																	
Q 1,000																	
PQ 3,000	VQ 2,000																
	MQ 1,000	F 800															
	G 200																

- **P: Price**
 - Revenue per customer
- **V: Variable cost**
 - Cost of food materials and etc
- **M: Marginal profit**
 - Price minus variable cost
- **Q: Quantity**
 - Number of customers
- **F: Fixed cost**
 - Personnel cost, rent cost, water, gas and electricity cost
- **G: Gain**
 - final profit

Exercise

Quantity down

- Volume is decreased by 10% because of a brand new restaurant's open
- How will the following numbers be changed?

Unit Economics
(yen)

P 3,000	V 2,000
	M 1,000

×

Volume
(persons)

Q 1,000

=

Whole Economics
(thou.yen)

PQ 3,000	VQ 2,000	
	MQ 1,000	F 800
		G 200

Answer

Quantity down

Unit Economics
(yen)

P 3,000	V 2,000
	M 1,000

x

Volume
(persons)

Q

=

Whole Economics
(thou.yen)

PQ	VQ	
	MQ	F 800
		G

Exercise

Price down

- You don't want to lose your customers by 10%. Then, you cut down P by 10% instead. Assume Q is not changed.
- How will the following numbers be changed?

Unit Economics
(yen)

P 3,000	V 2,000
	M 1,000

×

Volume
(persons)

Q 1,000

=

Whole Economics
(thou. yen)

PQ 3,000	VQ 2,000	
	MQ 1,000	F 800
		G 200

Answer

Price down

Unit Economics
(yen)

P	V 2,000
	M

×

Volume
(persons)

Q 1,000

=

Whole Economics
(thou.yen)

PQ	VQ 1,800	
	MQ	F 800
		G

Exercise

Quantity Up

- In order to go back to break-even point (zero profit) from this situation below, how many Q is needed?
- Calculate Q at the point in which $G=0$ (i.e. $MQ=F$)

Unit Economics
(yen)

P 2,700	V 2,000
	M 700

×

Volume
(persons)

Q 1,000

=

Whole Economics
(thou. yen)

PQ 2,700	VQ 1,800	
	MQ 700	F 800
		G -100

Answer

Quantity Up

Unit Economics
(yen)

P 2,700	V 2,000
	M 700

×

Volume
(persons)

Q

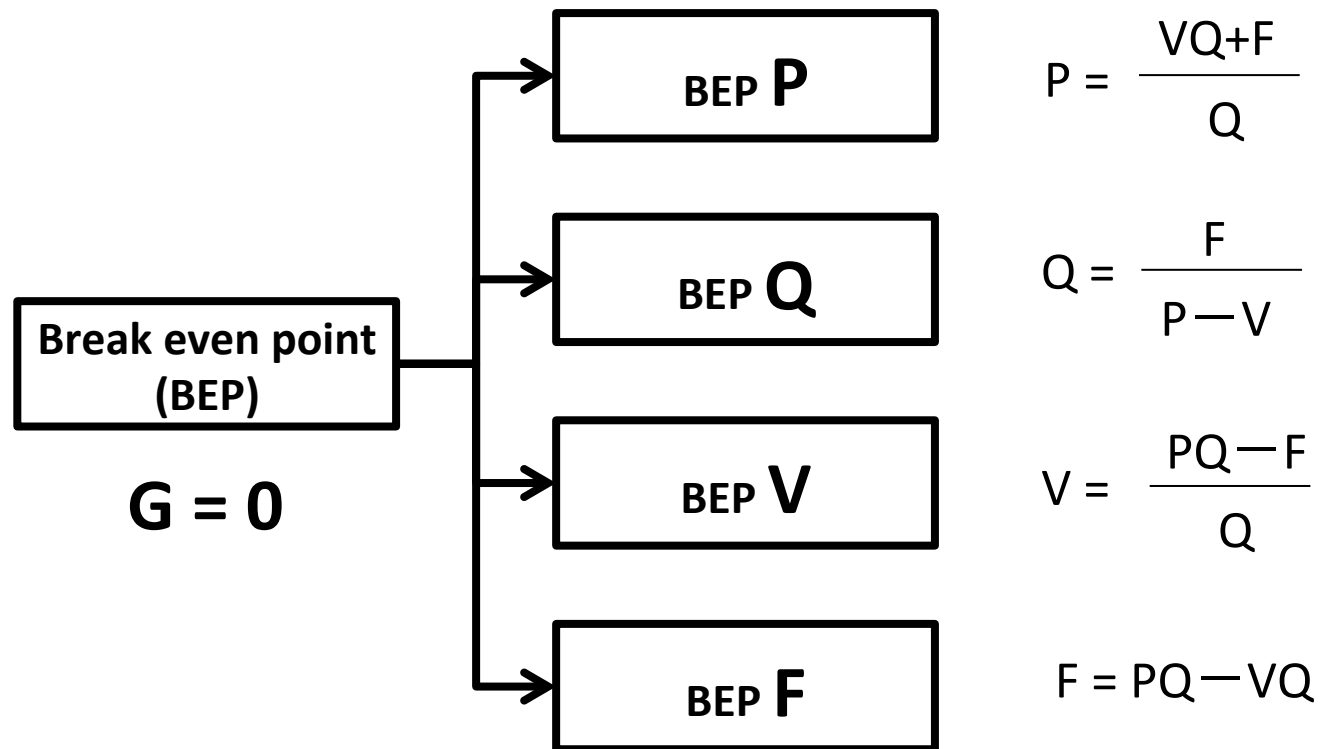
=

Whole Economics
(thou.yen)

PQ	VQ	
	MQ	F 800
		G 0

4 Break-Even Points

- You can calculate four kinds of break-even points (BEP P, Q, V and F)



Sensitivity of Levers

- In the Italian restaurant case, the most sensitive lever is P.

Rank	Levers	Status Quo	BEP	Sensitivity
1	P	@3,000yen	@2,800yen	↓ 6.7%
2	V	@2,000yen	@2200yen	↑ 10%
3	Q	1,000	800	↓ 20%
4	F	800,000yen	100,000yen	↑ 25%

Difference by cost structure

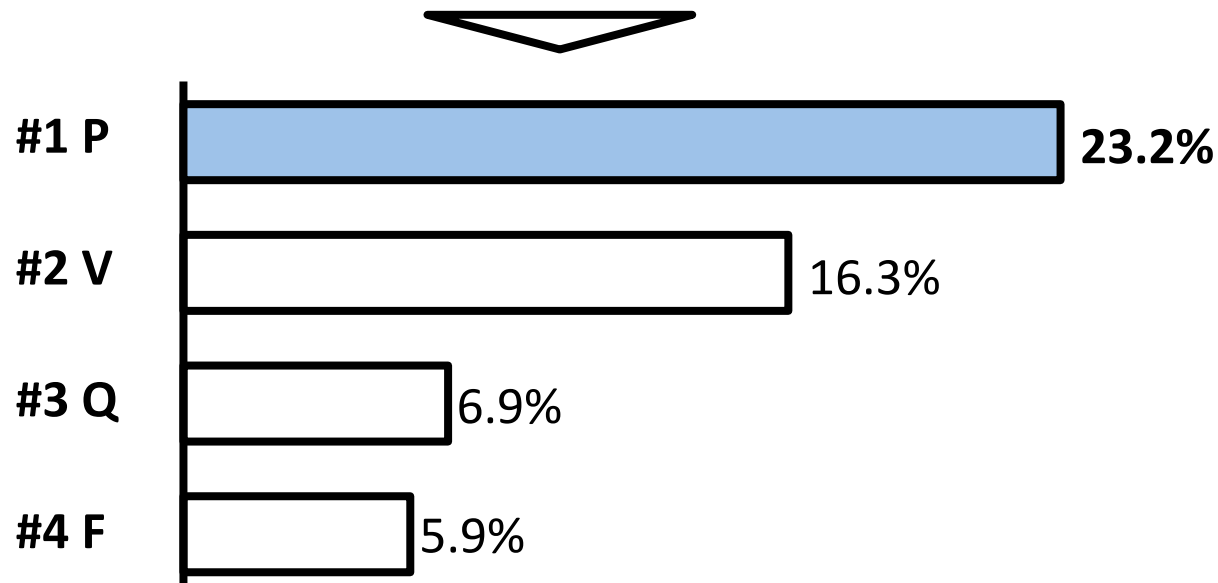
- Sensitivity of levers is different depending on cost structure
- **P is the most sensitive lever in each case**

	Type A: (higher fixed cost)	Type B: (balanced)	Type C: (lower fixed cost)																											
Cost structure example	<table border="1"> <tr> <td rowspan="4">PQ 100</td> <td colspan="2">VQ 20</td> </tr> <tr> <td>MQ 80</td> <td>F 70</td> </tr> <tr> <td></td> <td>G 10</td> </tr> <tr> <td></td> <td></td> </tr> </table>	PQ 100	VQ 20		MQ 80	F 70		G 10			<table border="1"> <tr> <td rowspan="4">PQ 100</td> <td colspan="2">VQ 50</td> </tr> <tr> <td>MQ 50</td> <td>F 40</td> </tr> <tr> <td></td> <td>G 10</td> </tr> <tr> <td></td> <td></td> </tr> </table>	PQ 100	VQ 50		MQ 50	F 40		G 10			<table border="1"> <tr> <td rowspan="4">PQ 100</td> <td colspan="2">VQ 80</td> </tr> <tr> <td>MQ 20</td> <td>F 10</td> </tr> <tr> <td></td> <td>G 10</td> </tr> <tr> <td></td> <td></td> </tr> </table>	PQ 100	VQ 80		MQ 20	F 10		G 10		
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PQ 100	VQ 50																													
	MQ 50	F 40																												
		G 10																												
PQ 100	VQ 80																													
	MQ 20	F 10																												
		G 10																												
Variable cost %	20%	50%	80%																											
Sensitivity	<p>#1 P 10%</p> <p>#2 Q 13%</p> <p>#3 F 14%</p> <p>#4 V 50%</p>	<p>#1 P 10%</p> <p>#2 V 20%</p> <p>Q 20%</p> <p>#4 F 25%</p>	<p>#1 P 10%</p> <p>#2 V 13%</p> <p>#3 Q 50%</p> <p>#4 F 100%</p>																											

Research in Japanese companies

- McKinsey research shows that **P is the most sensitive lever** in an average Japanese company (the research based on all the TSE 1st section listed companies)

Q: “By improving four levers: P, V, Q & F only **by 1%, how much EBIT would be improved?**”

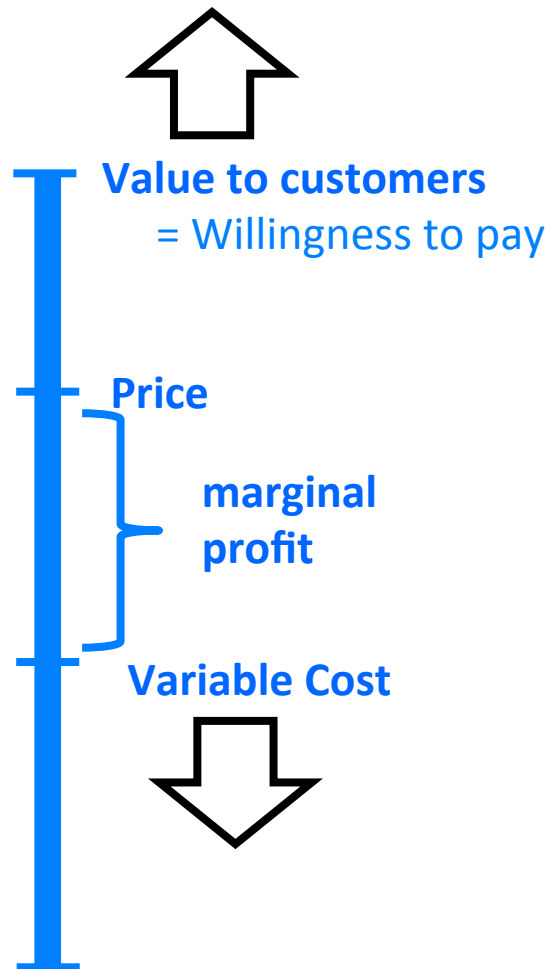


“McKinsey Pricing”

Pricing is important

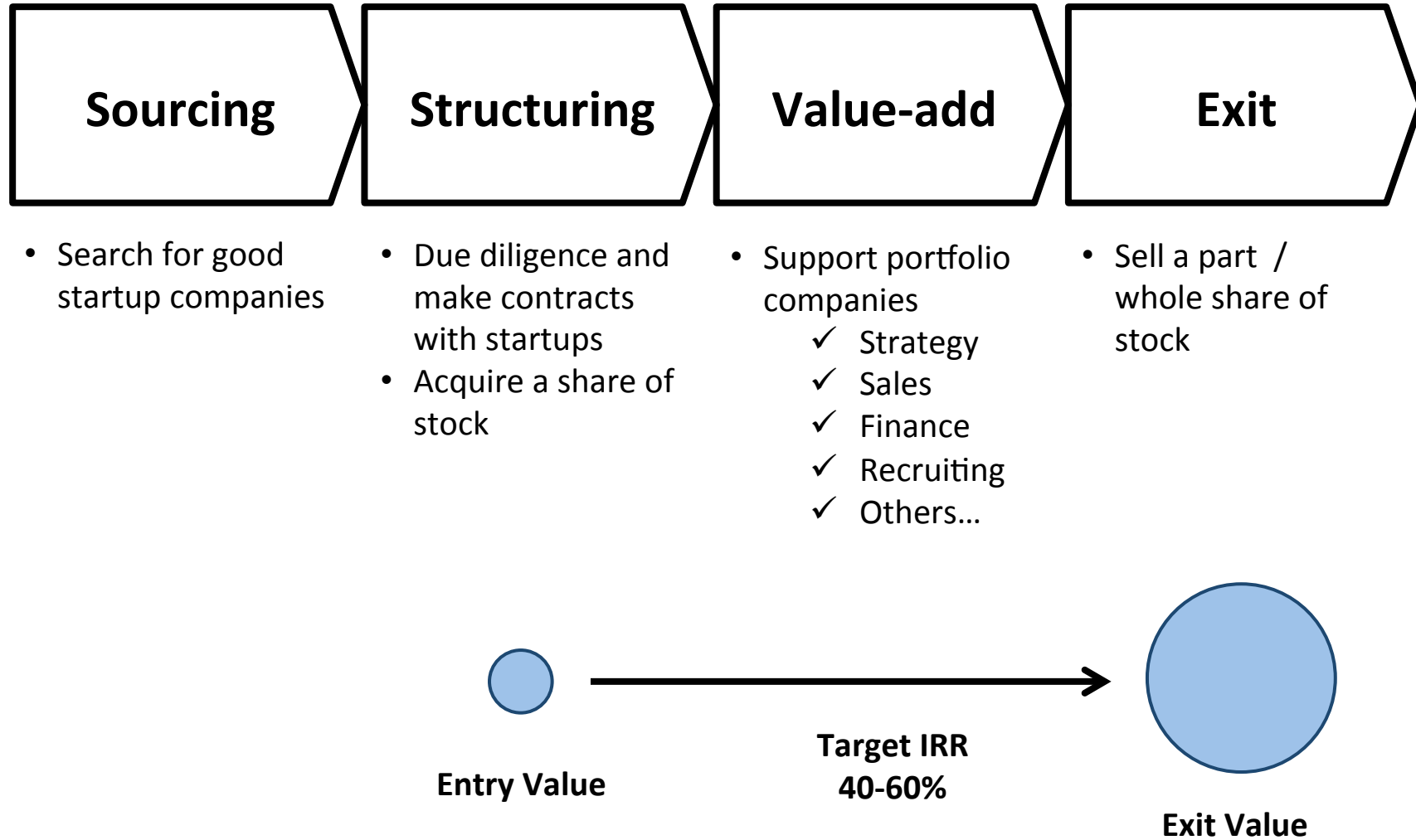
- The most sensitive lever is P.
- In real business, price increase is a tough action.
 - degree of demand change is uncertain
 - In B2B business, hard negotiation might be needed
- However, you should recognize how important pricing is.

Unit Economics

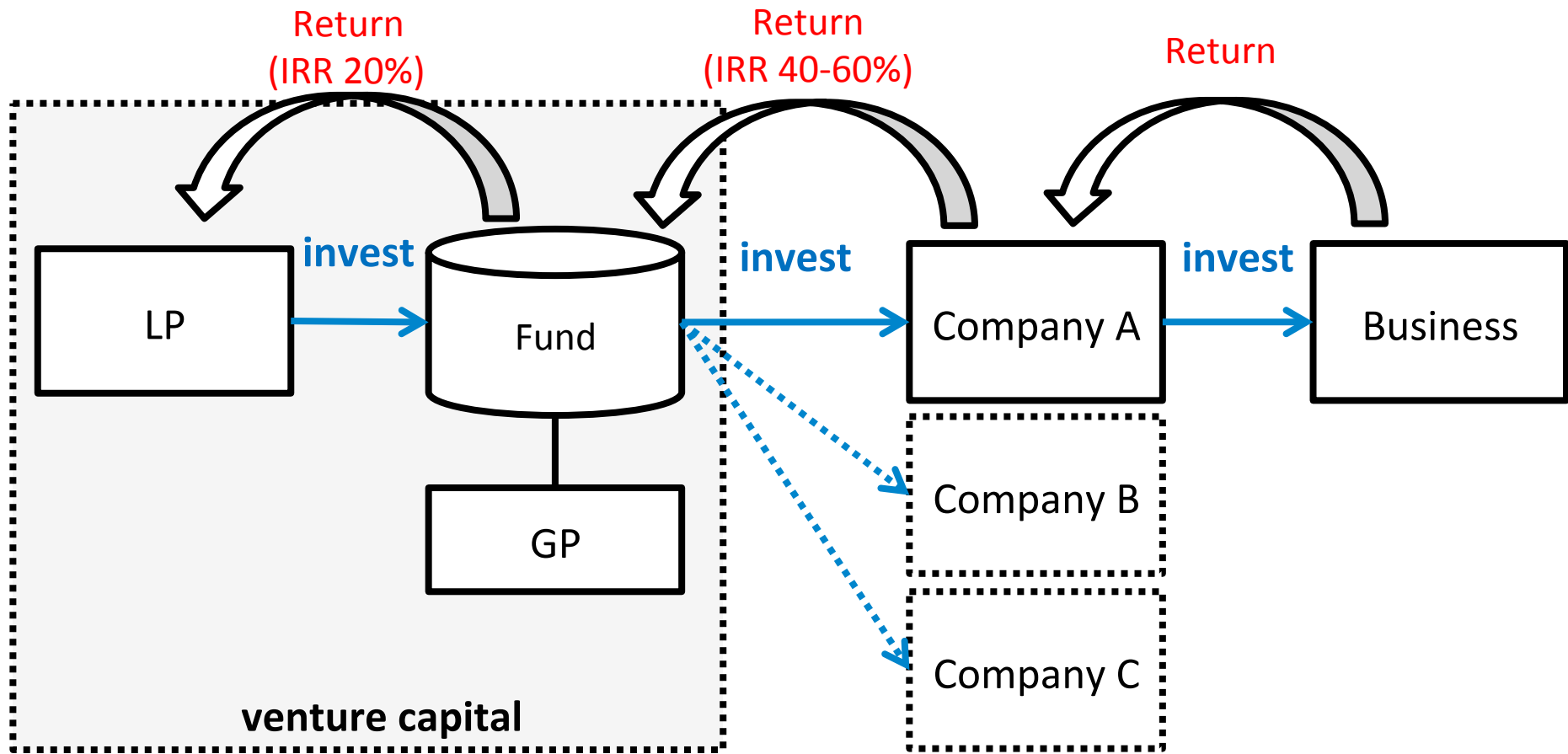


- Value to customers must be higher than price
- You want to increase value / decrease cost for getting more marginal profit
- Value is not fixed:
 - ✓ it depends on customers
 - ✓ it depends on what story you deliver

VC's activities



Structure of a VC



Where do VCs check?

Marketability	<ul style="list-style-type: none">• Sufficient market size?• Unmet needs?• Growing?
Product/Service	<ul style="list-style-type: none">• Value proposition satisfies unmet needs?• Scalable?
Competitiveness	<ul style="list-style-type: none">• Competitive advantage?• Sustainable?
Management team	<ul style="list-style-type: none">• Can get things done?• Good chemistries?
Profitability	<ul style="list-style-type: none">• Good unit economics?• Initial investment can be paid back?
Return to funds	<ul style="list-style-type: none">• Sufficient return to the fund?

For raising money from VCs

- You have to convince them that their investment will make sufficient return in future.
- You have to show that:
 - Market is attractive
 - Value proposition is unique and valuable
 - Implementation plan is doable
 - Unit economics is good enough
 - Business model is scalable

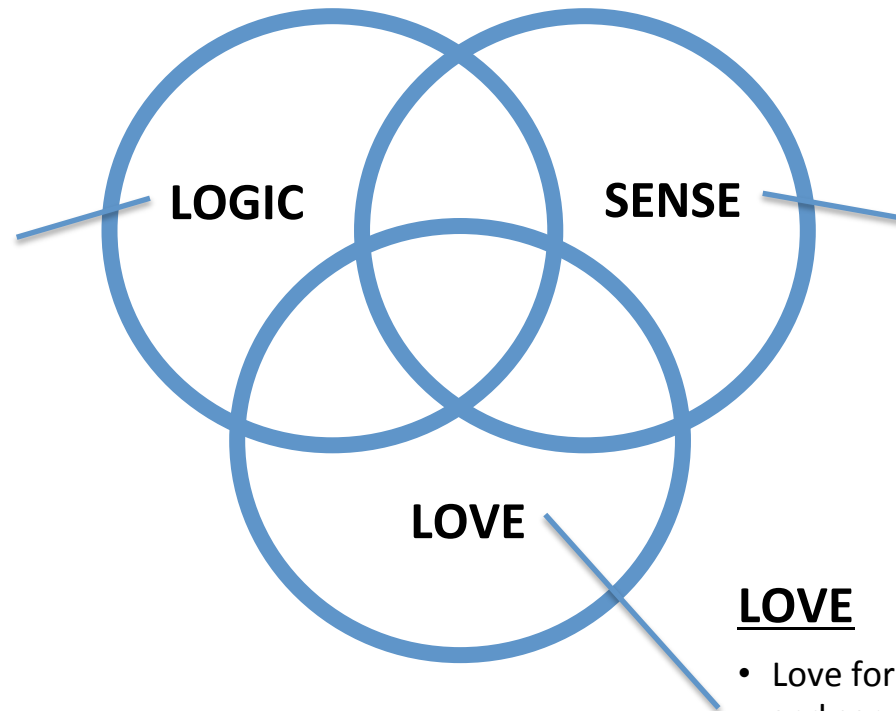
Wrap Up

- Business model / value proposition**
- Marketing / growth**
- Unit economics / finance**

Three factors of design Logic / Sense / Love

LOGIC

- Logical thinking and communication
- Logical estimation of profitability
- Logical investment decisions



SENSE

- Strong empathy for customers' unmet needs, pains and gains
- Sense for integrating what he/she experienced into insights
- Sense of story telling

LOVE

- Love for customers, products and services
- Strong belief on what he/she is doing

“Design Management” by Manabu Tago, Hiroko Tago, and Hiroshi Hashiguchi

Entrepreneur's role

- Entrepreneur's role is.....everything:
 - Design value proposition
 - Design business model
 - Set price
 - Pitch business plan
 - Raise money
 - Do sales and marketing
 - Recruiting team members
 - Show direction and vision
 - Create corporate vulture
 - and so on.....
- But, you don't need to do everything by yourself.
 - Contact the right person at the right time
 - Connect to good network

Entrepreneurs need to have...

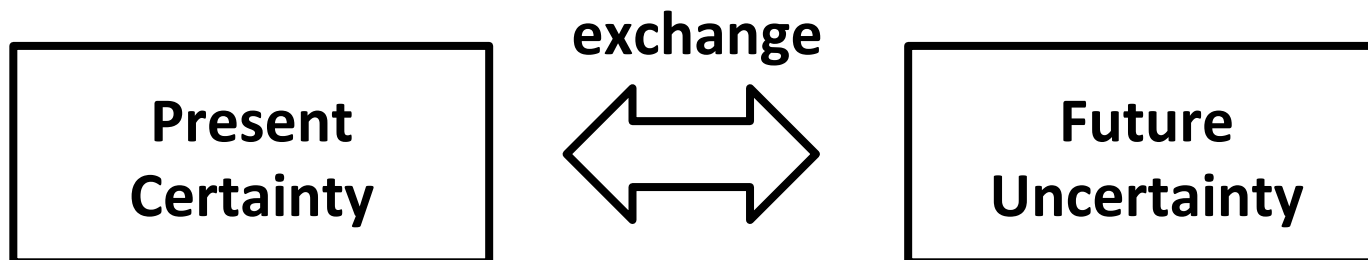
- Decent track record
- Clear-cut vision
- Communication skill
- Creative confidence

⋮

- and, **charm!!**

What is “investment”?

- Investment is an **exchange of present certainty and future uncertainty.**
- Investments are nested:
 - GPs invest money on VC funds
 - VC funds invest money on venture companies
 - Venture companies invest money on business
 - and so on..



Entrepreneur's life is investment

- If you'd choose a life as an entrepreneur, that is investment.
 - taking uncertain future, instead of stable/certain life at an established entity
- No one gives a direction to you.
 - you should handle your own business and life with sense of ownership and urgency

Last but not least

- Uncertainty IS a big opportunity for us.
- Be proactive, be positive, be energetic, and be passionate.
- Go for uncertain future!

**Good luck on your journey
and have fun!!**

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