Title	Market penetration of athlete's support device micoach : Introduction of athlete's support device "mi Coach"
Sub Title	アスリートサポートデバイス mi Coach の市場浸透
Author	Adidas(Adidas) 湊, 宣明(Minato, Nobuaki) 佐藤, 克成(Sato, Katsunari)
Publisher	慶應義塾大学大学院システムデザイン・マネジメント研究科
Publication year	2011
Jtitle	Active learning project sequence report Vol.2011, (2011.) ,p.69- 129
JaLC DOI	
Abstract	he project theme was to think the way of penetrating micoach further into the Japanese runners market. Micoach is running support gear that helps runners by three main functions; real-time oral feedback, visualization of running data in numbers and graph, and training plan aiding. In spite of high quality and novelty of micoach, it has not been sold well in Japanese market. In this report, we propose an innovative solution, "miGotchi" that would achieve synergy and symbiosis between proper physical running and video games, and the overall project trajectory we took to reach there is described. Initially, we had a hypothesis that the way of promoting micoach to runners is the core issue, since we considered low sales of micoach arises from lack of awareness towards micoach. But after conducting several interview observations with runners, we acquired the key insight that the way that micoach visualizes data is too scientific and complicated for people to intuitively understand and to keep motivation, while people's biggest needs was to monitor their performance and to keep motivation continuously. After the creating new ideas by brainstorming, and pugh selection, we selected miGotchi. MiGotchi expresses current scientific data into picture-based image such as a panda growing up as the user runs more; also the panda gets fatter or even dies as user gets lazier. We rapidly made a prototype, which mimicked the real iPhone application of miGotchi in order to validate whether our concept enhances motivation of runners. From the feedback, we realized that we should make several series of modes since we wanted a variety of people to find an interface that suits their taste. The fourth ALPS workshop, Sun Kim pointed out that sociability is a key factor today and thus holds a great potential for penetration. Then we employed the innovative interactive system; for instance, a user takes care of a player in a football video game, which changes its status corresponding to his or her running performance (miGotchi concept), and he can make up a virtual football team with his or her friends. This way, runners can mutually motivate each other and enjoy the additional excitement. The VV, based mainly on interviews with SD method questionnaire, clearly proved its easiness to access data and enhancement of motivation compared to current micoach and competitor Nike+. Along with the product, business models were designed from service maps and dynamic CVCA. These business models capitalized on the continuous earning system that adidas micoach lacked, and they offer runners to have virtual enjoyment as well such as virtual football tournament in return with additional payment. The net present value was calculated as 6.8 million JPY, which proves its great potential in the business context. As a conclusion, we strongly believe that the concept of miGotchi has great potential as a business, of its feasibility, sustainability, and uniqueness. Next step of this project would be the specification of the transferring algorithm of interface system between raw data into image data, which is planned to be solved by conducting QFD, interviews and observations.
Notes	Student final reports Group A
Genre	Research Paper
URL	https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=KO40002003-00002011-0069

Group A

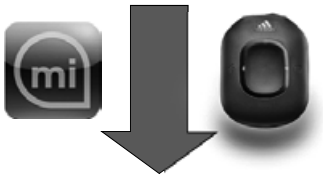
Group A's Theme Proposed by adidas Japan

ALPS "Symbiosis and Synergy" theme title: Introduction of athletes' support device "mi Coach"

Proposer Organization's Name: **adidas Japan**

Contact Person's Name: Takashi Yamashita / Hiroyuki Ito Contact Person's email: takashi.yamashita@adidas.com
hiroyuki.ito@adidas.com

Abstract of your project theme :



- **Our mission is "To be the leading sports brand in the world"**
- **We would like to create a situation where people regard adidas as the leading personalized sports brand through this project**
- **We need to find out the best way how our Apparel/Footwear, mi Coach, and athletes create mutualism**
- **How should adidas Japan introduce mi Coach in order to being well-accepted by as many athletes as possible ?**

ALPS Final Report 2011

Group A

Project Title:

Market Penetration of Athlete's Support Device micoach

Theme:

Introduction of Athlete's Support Device "mi Coach"

Proposer Organization: adidas Japan

Proposer Organization's Supporters: Takashi YAMASHITA, Yusuke HOSHI & Hiroyuki ITO

Keio Mentor: Nobuaki MINATO & Katsunari SATO

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Shimon AKIYAMA

Kimihiko IKEDA

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Market Penetration of Athlete's Support Device micoach

Akiyama Shimon　　Ikeda Kimihiko　　Yuta Ujihashi
Soravit Chongprasitipol　　Nick Venderbosch　　Hideki Hirai

1. EXECUTIVE SUMMARY

The project theme was to think the way of penetrating micoach further into the Japanese runners market. Micoach is running support gear that helps runners by three main functions; real-time oral feedback, visualization of running data in numbers and graph, and training plan aiding. In spite of high quality and novelty of micoach, it has not been sold well in Japanese market. In this report, we propose an innovative solution, “miGotchi” that would achieve synergy and symbiosis between proper physical running and video games, and the overall project trajectory we took to reach there is described.

Initially, we had a hypothesis that the way of promoting micoach to runners is the core issue, since we considered low sales of micoach arises from lack of awareness towards micoach. But after conducting several interview & observations with runners, we acquired the key insight that the way that micoach visualizes data is too scientific and complicated for people to intuitively understand and to keep motivation, while people’s biggest needs was to monitor their performance and to keep motivation continuously.

After the creating new ideas by brainstorming, and pugh selection, we selected miGotchi. MiGotchi expresses current scientific data into picture-based image such as a panda growing up as the user runs more; also the panda gets fatter or even dies as user gets lazier. We rapidly made a prototype, which mimicked the real iPhone application of miGotchi in order to validate whether our concept enhances motivation of runners. From the feedback, we realized that we should make several series of modes since we wanted a variety of people to find an interface that suits their taste.

The fourth ALPS workshop, Sun Kim pointed out that sociability is a key factor today and thus holds a great potential for penetration. Then we employed the innovative interactive system; for instance, a user takes care of a player in a football video game, which changes its status corresponding to his or her running performance (miGotchi concept), and he can make up a virtual football team with his or her friends. This way, runners can mutually motivate each other and enjoy the additional excitement.

The V&V, based mainly on interviews with SD method questionnaire, clearly proved its easiness to access data and enhancement of motivation compared to current micoach and competitor Nike+.

Along with the product, business models were designed from service maps and dynamic CVCA. These business models capitalized on the continuous earning system that adidas micoach lacked, and they offer runners to have virtual enjoyment as well such as virtual football tournament in return with additional payment. The net present value was calculated as 6.8 million JPY, which proves its great potential in the business context.

As a conclusion, we strongly believe that the concept of miGotchi has great potential as a business, of its feasibility, sustainability, and uniqueness. Next step of this project would be the specification of the transferring algorithm of interface system between raw data into image data, which is planned to be solved by conducting QFD, interviews and observations.

2. TABLE OF CONTENTS

3. PROBLEM STATEMENT

This section contains following contents.

3.1 Our Project Scope

In recent years, in spite of population decrease due to declining birth rate, the number of runners in Japan is increasing rapidly. Therefore the market related to running is expanding. Accordingly, increasing numbers are observed in the following segments; running stations (especially the ones around famous running spots such as imperial palace called "*Kokyo*" in Japanese), sales of running magazines, sales of running apparel, and websites.

These days, the effect of IT revolution has reached sport industry. Some sports industries including adidas and Nike had invented smart devices that measures runners performance such as distance, time, pace, and path. Adidas has already established leading position on apparels and footwear industry, but they are suffering a hard situation on penetration of electric devices into market, due to lack of know-how. Our project scope is to think the way to increase the sales & downloads of adidas running support gear micoach.

3.2 Constraints

In the course of defining our project scope along with the initial meeting with adidas, we found some constraining factors that have to be always taken into account throughout the project. The constraint is fundamentally too relevant to the "brand image" of adidas. While we initially sought for literally infinitely possible approaches to penetrate micoach, which include the idea of medical application such as remote monitoring of distant elder people's conditions. Adidas, as a company, possesses a strong brand image of "sports", and "young". Therefore they wanted us to take "sports" as the main field even though its second order effect could be some other field, and think "young" at least at the back of our mind.

3.3 Description of micoach

Micoach is running support gear released from adidas. The main purpose of this service is to increase the efficiency of training. The product supports runners in three ways; measuring running data, giving runners feedback in real-time, and automatically set suitable training plan corresponding to your purpose.

Micoach basically measures the distance, time, pace, heart rate, location, stride, and calories while running. Then it provides runner with real-time voice feedback so that runners can change pace for their ideal burden, which enhances efficiency of the training. By combining these functions, micoach helps runners to achieve their goal.

There are two types of micoach.

Micoach PACER (see figure 1-1):

It is set of hardware used to wear stride sensor on foot, heart-rate sensor on the chest, and the core device on arm. The data is transferred and linked by connecting it to the PC.

Micoach MOBILE (see figure 1-2):

It is used as smart-phone application. Some of the factors cannot be measured by MOBILE, but users can record his/her running route using GPS. The data is transferred or linked automatically by 3G.

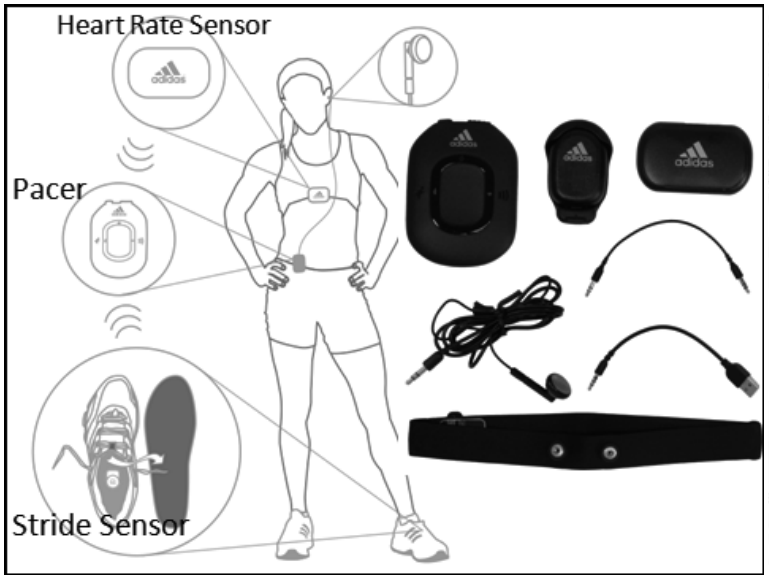


Figure 3.1: micoach PACER

Figure 3.2: micoach MOBILE

5

3.4 Runners Market

In the field of electric device, Nike provides the product Nike+ as a strong competitor against micoach. Nike+ can measure and record speed and pace of runners. Micoach has advantage against Nike+ in that it has real-time voice feedback system, plentiness of training menus, and accuracy that it gains data from heart-rate monitor.

4. ANALYSIS AND DISCUSSION OF ALPS METHODS

4.1BrainStorming

4.1.1 Project Scope

In the very beginning of the project, we once simply tried to think about possible approaches or solutions for this project. We expanded our idea from keyword of "running with miCoach" using Brain Storming method. We listed up our possible future customers, services, and functions (Figure 4.1.1).

Figure 4.1.1: Brain Storming about project scope

Conducting Brain Storming, hypothesis that "awareness" is the biggest issue came up, thus some kinds of "promotion" will be effective. In the course of brainstorming, we came to think of possible ways of promotion, followed by Scenario Graph.

4.1.2 Concept Generation

Also after we conducted interviews and affinity diagrams, we used brainstorming to crate our concept in order to serve customer's needs and also add value and functions into Adidas miCoach (see figure 4.1.2).

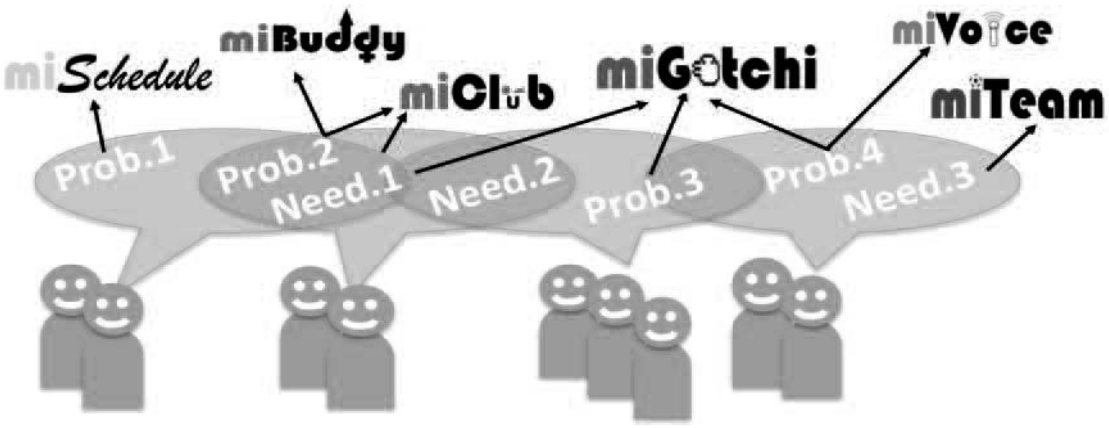


Figure 4.1.2: Brainstorming for Concept generation

During our brainstorming, there were so many solutions we came up with and all of our solutions were based on the result of our interviews.

For example,

1. MiSchedule

   An additional schedule function of miCoach, users can passively manage their daily schedule by miCoach automatically suggest possible time-slot for training considering your changing schedule. This holds potential of eliminating the barrier of motivation arising from the pain of time management.

2. MiBuddy

   Functions of sharing individual runner's location, users also can use miBuddy to detect other miCoach users. This idea comes from the fact that more and more runners go running in a group rather than alone and from the VOC that even through they run in the same area and at the same time, they do not necessarily want to run next to each other at the same speed, but they want to run at his own pace and to meet up chatting at a place to rest.

3. MiClub

   This function would bring miCoach's users more convenience.

   Users can easily shop while running by using concept of debit money inspired by suica and pasmo system in Japan. No more carrying wallet while running!!

4. miGotchi

   An interactive handheld digital pet, which connect and interact with an individual Adidas miCoach's data, which is our final solution.

5. miVoice

How great will it be, if you can choose the voice of your individual coach by your own? Adidas miVoice provides such variety voices from famous people around the world. Can you imagine yourself being coached from David Beckham or Paris Hilton or even your own voice? Such a motivation it is!!

6. miTeam

Let's interact with your teammate. Adidas miTeam gives you new experience of team exercise. Using miTeam in soccer game, you can track yourself how many times you miss the shots, or even how well you control the ball. Adidas miTeam will record your performance, then all data will be shown via your PC.

4.1.3 Prototype Interface

After selecting our concept, we got to design more specific aspect of micoach such as interfaces, how we express the scientific data. By conducting brainstorming, about needs of runners, we chose "panda" interface because an interface that can be well accepted by "female runners" was a key factor at that point. We also figured out that "frequency of activity" is an essential parameter to be expressed there because adidas want runners to run more "often" and runners want to run continuously.

4.1.4 Variety of game modes

The insight we gained from the previous Interview & Observation and Rapid Prototyping is that miGotchi shall contain various ideas for variety of people, since no single idea fulfills every people. Based on that point of view, we conducted a brain storming to create ideas, which should be contained in miGotchi. By conducting brainstorming, we came up with other game modes or interfaces (figure 4.1.4A~4.1.4F).

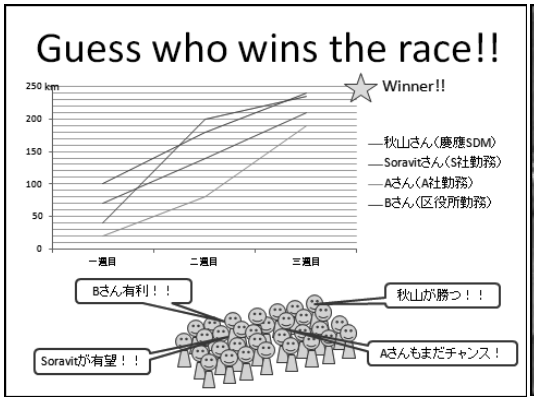


Figure 4.1.3A~4.1.3F

In the course of brainstorming, we noted that “change distinguishability is important. For instance, “ice skating” is relatively appropriate as an interface because it holds distinguishable techniques such as standing/skating/back skating/jump that let users understand the parameter change easily. Another example is Sugoroku because the distance on the virtual map represents your performance in a very clear way.

4.2 Scenario Graph

We conducted Scenario Graph in order to discuss the way runners can use micoach in broad ways (Figure 4.2).

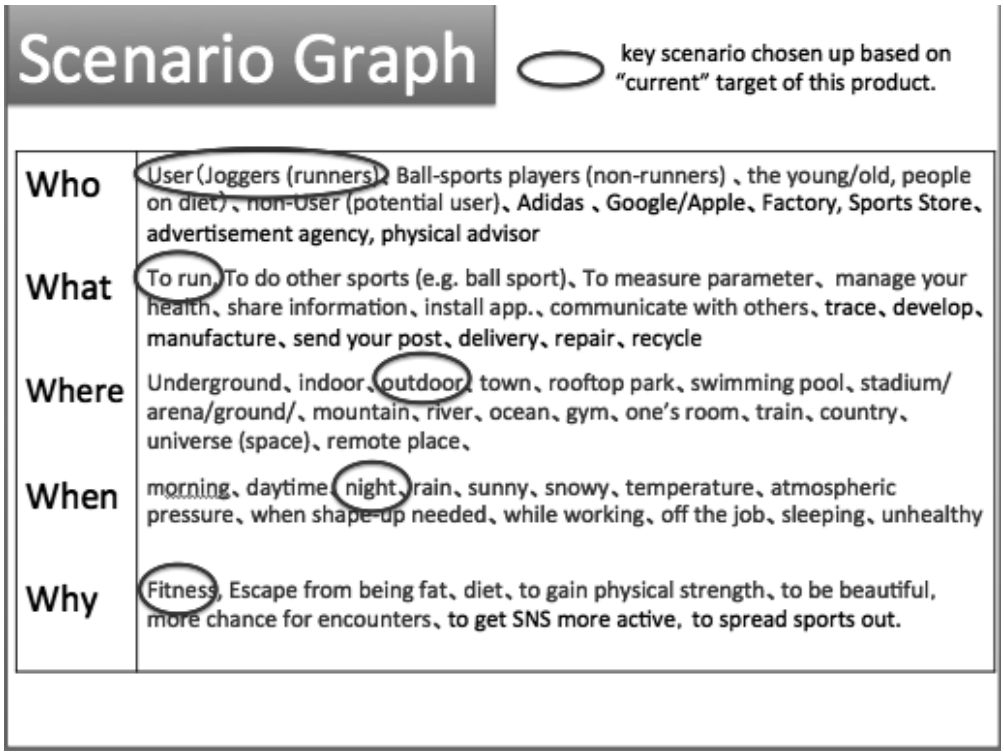


Figure 4.2: Scenario Graph

By Scenario Graph, we could understand two aspects. One is the fact that the scenario "running alone at night" is the largest number of context. Thanks to this result, we could narrow down and choose a context where we conduct interviews and observations. Because our resource is limited and is impossible to go to interviews on too many situations, scenario graph was of great use for us to at least decide the first step of where and when to go interviewing. And the other is merely to pick up the stakeholders that would come up in the CVCA.

4.3 CVCA around adidas and runners

Along with the scenario graph, CVCA helped us to understand the related stakeholders around adidas and runner (figure 4.3).

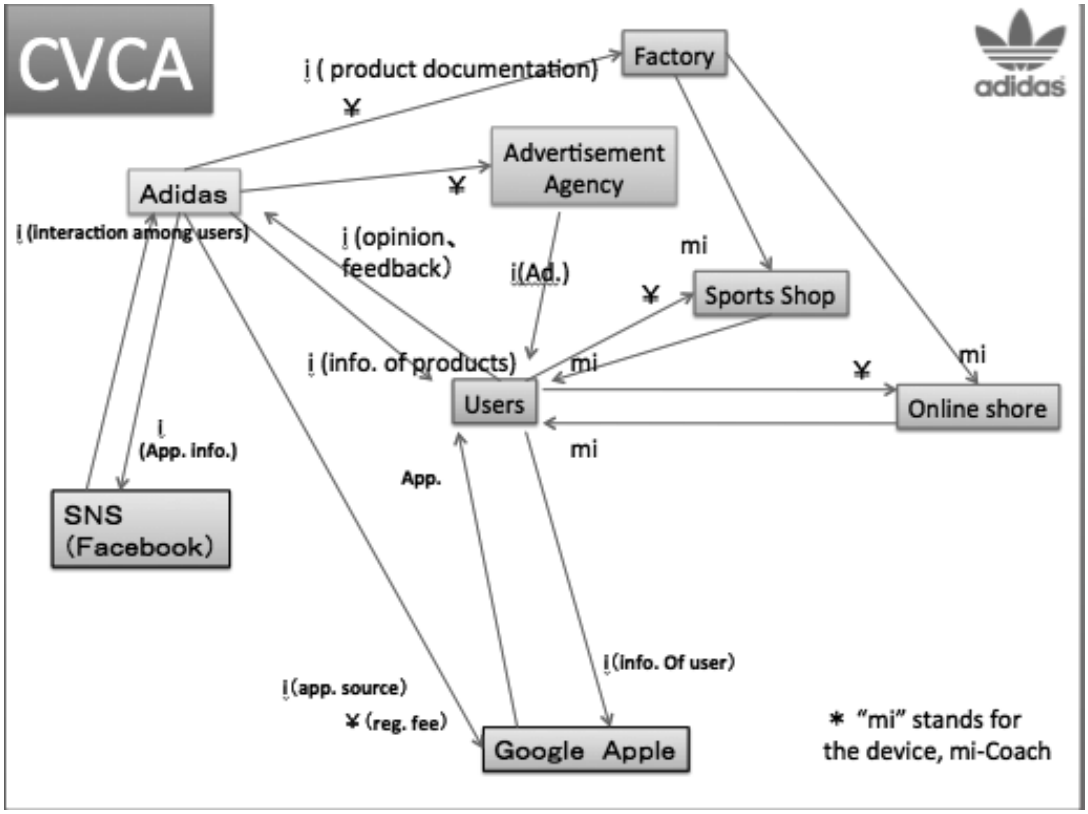


Figure 4.3: CVCA surrounding adidas and runners

It helped us to prioritize the target of our interviewee. From this CVCA we concluded to interview adidas, retailer (adidas, Nike, and others) and runners. It also let us know the lifecycle between runners and micoach from the phase of adidas contriving product to consumer buying it. This would help us when we think about the business models, the feasibility of design change, and risks we might face.

4.4 WCA(Wants Chain Analysis)

We conducted WCA for same objective with CVCA (figure 4.4).

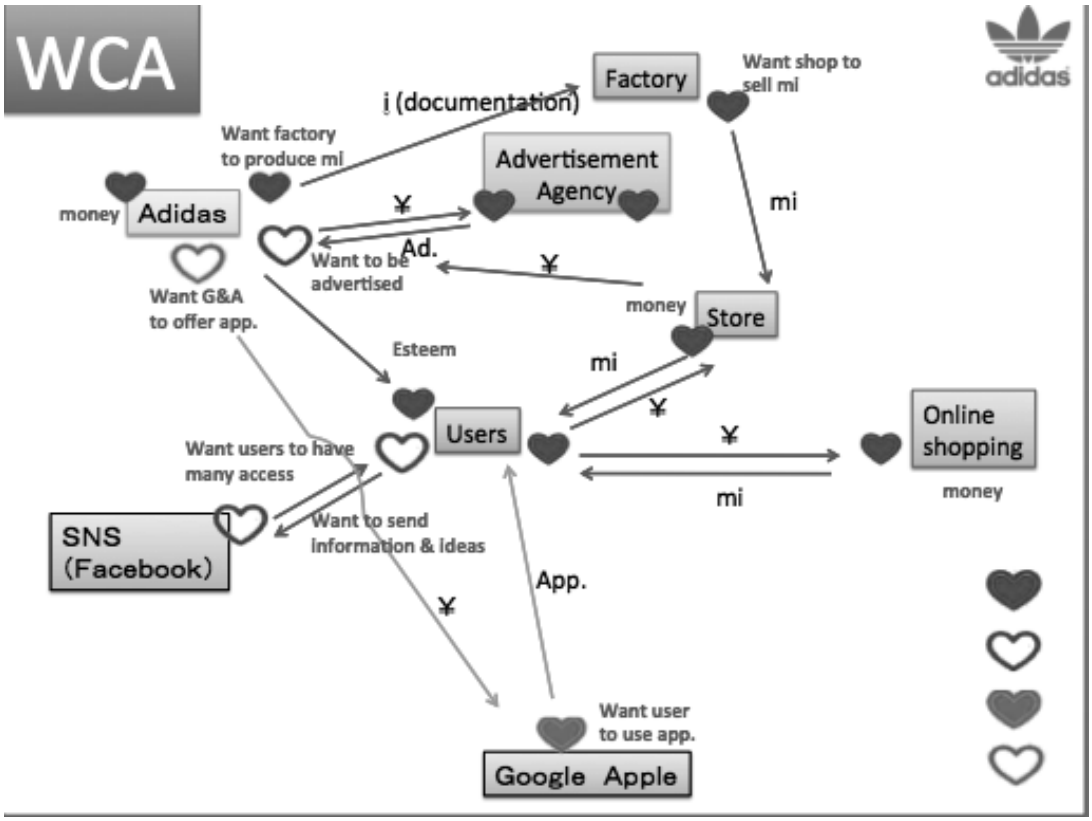


Figure 4.4: WCA surrounding adidas and runners

This tool was of little value for us. The direction of want written here is based on either our imagination or their superficial comment. Either way, the results provide us with nothing.

4.5 Interviews & Observations

4.5.1 Gathering VOC

After we made scenario graph, CVCA, and WCA respectively. In order to get the feedback from Adidas miCoach major customers, we conducted interviews with several group runners, people, athletes, and even competitor (Nike). The schedule of our interviews is shown in the list below.

June15, 2011: Imperial Palace (30yrs old and 50 yrs old female runners)

June17, 2011: Keio Tennis Club

June 18, 2011: Nike Harajuku Branch

June19, 2011: Kamo Sport Shop Ikebukuro Branch, B&D Sport Shop Yoyogi Branch (Soccer and Running Department)

June20, 2011: 19:00: Runners at Imperial Palace

20:00: Professional Cyclers at Imperial Palace

21:00: Dinner with ‘’IDATEN’’(Group of Runners)

June22, 2011: Sheffield Football Club, England (via skype)

June25, 2011: Surveyed at KEIO University

Sep10, 2011: Female University Students (Runners)

Sep23, 2011: Interview with miCoach users at Imperial Palace

Oct1, 2011: Interview with Track and Field athletes via phone

For the pictures of interviews & observations, see figure 4.5.1A~4.5.1F.

And the results of interviews can be grouped and categorized as shown in the next Affinity diagrams, where we got an important insight that product itself has considerable rooms to be improved.

zFigure 4.5.1A: interview1

Figure 4.5.1B: interview 2

Figure 4.5.1C: interview 3

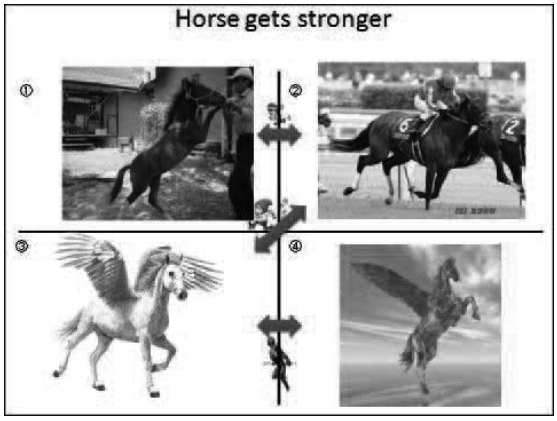
Figure 4.5.1.D: at Nike

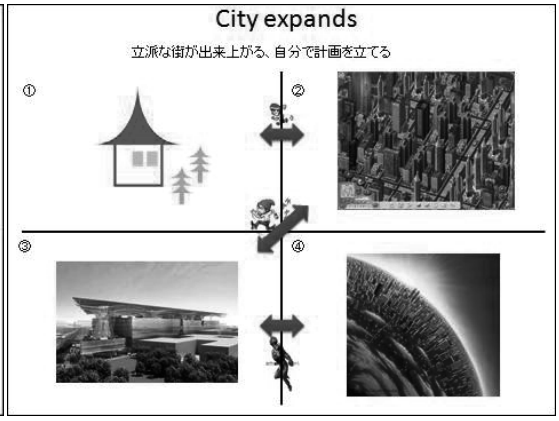
Figure 4.5.1.E: at sport club

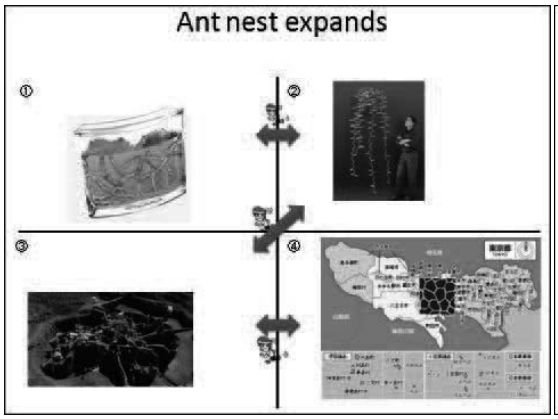
Figure4.5.2F: Survey

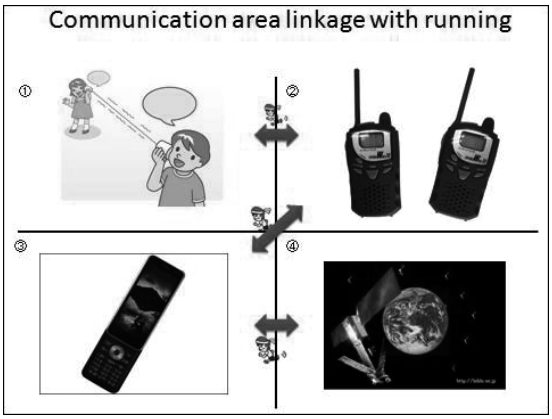
4.5.2 Getting feedbacks of our ideas

As many game ideas generated by the brainstorming, but didn't' t know which one was best for our target. We conducted Interview & Observations to 20 women. Questions we asked are "Which idea will motivate you the most?" "Which idea most represents the connection between running and character?"(See figures 4.5.2A~4.5.2H). These are the eight samples of the 20types we made.









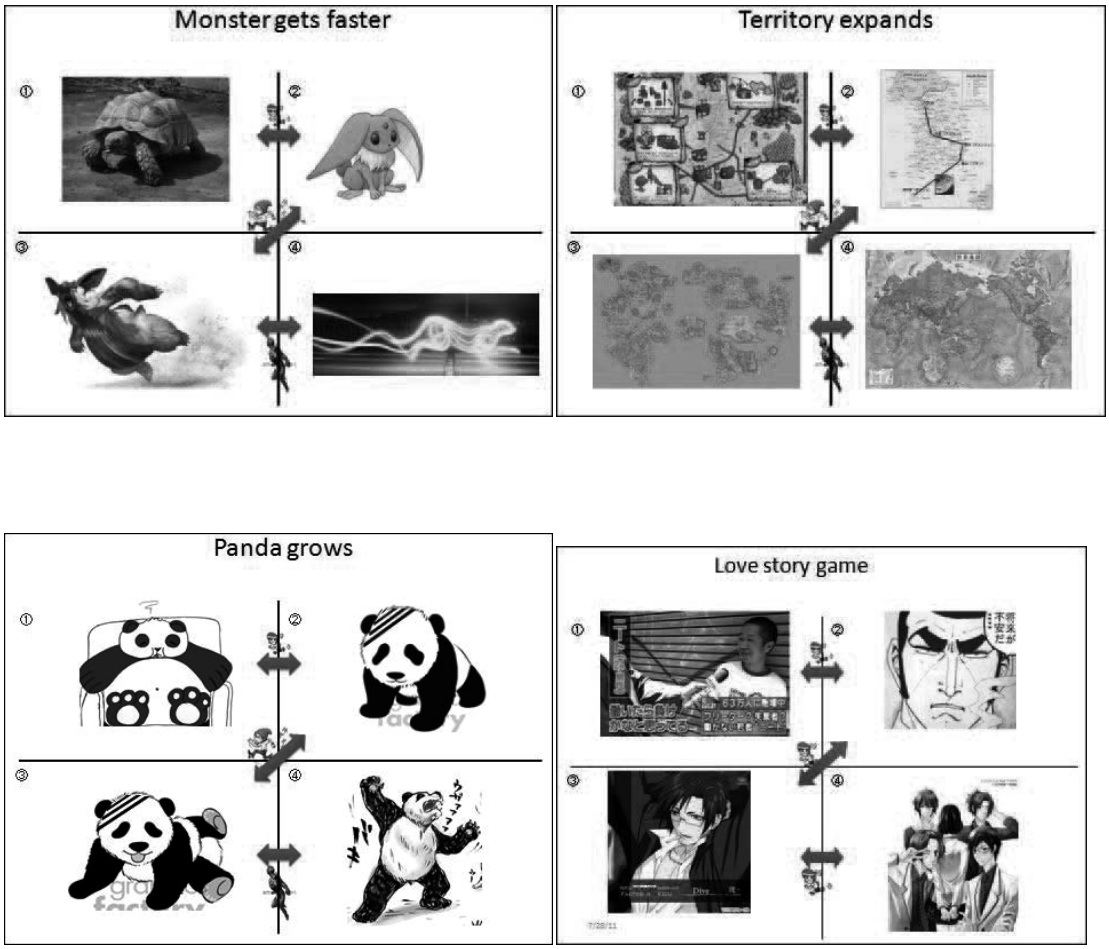


Figure 4.5.2A~4.5.2H: miGotchi interface

By conducting Interview & Observations to women we found out that as a character, panda will best enhance the motivation of our targets, because panda fulfills the “run-up, lazy-down” concept of miGotchi since the character is well known to many people, letting people to understand the alternation. On the other hand, we learned that not people has variety of ideas toward the character, depending on their likelihood or hobby.

This interview gave us the insight that there is no single idea that which fulfills every people. In other words, miGotchi should contain variety of modes so variety of people would like it. This insight helped us to reconsider about our target.

4.6 Affinity Diagram/KJ Method

First, we asked our interviewee about their running perspective. And we concluded our resulted we got as shown in the Figure 4.6.A: Affinity diagram1.

Figure 4.6.A: Affinity diagram Figure 4.6.B: Affinity diagram2 Figure4.6.C: Affinity diagram3

Most of our interviewee thought that maintaining motivation of running is very hard because in most cases running is not their purpose but a means for another purpose such as shape up or diet. They had to push themselves hard in order to carry on running. Most of them also thought that running is quite a boring sport when compared to other exciting sports such as soccer, basketball or even baseball, because it is monotonous and has no interaction with others. Yet, they still kept running because they want to have a healthy body and running is the most suitable sport for their lifestyle. They also said that environmental problem hampers them from going out to run. To illustrate, many of the runners go running after they finish working on the way back home, which means they have to bring running gears such as shoes, wears to change and so on. This is quite bulky. In addition, they normally need place to change clothes and to have shower after running, which is not yet well established. We decide not to deal with aspect in this project, as it is highly likely to be beyond electric device support.

Next, we asked them about their requirements for making running experience better. Most of their requirement is shown in the Figure 4.6.B; Affinity diagram2. They thought that it would be nice if they could monitor their performance, build their own custom, and improve their efficiency. Monitoring performance and custom building were heard considerably way more often than efficiency, because those who long for efficiency is a kind of expert or serious-minded runners, who has already build their customs. Therefore, in terms of volume and impact, the former two factors are of primary significance.

Then, we asked interviewee about our product “Adidas miCoach”. Unfortunately, miCoach

had low awareness. Most of Japanese runners did not know much about our product. Even though, some runners had heard of it but they got confused with our competitor's product "Nike+". However, we explained miCoach function for those who had never heard of it. Most of runners still could not imagine how miCoach would affect them or even could not see pictures of themselves using miCoach. Moreover, they thought miCoach function is too complicated and some functions are useless for them. In sum, most of Japanese runners just needed the simple coaching device. Please see Figure4.6.C

4.7 Morphological Diagram

We discussed several ways to physically realize the concept of our miGotchi, as the list below

1. Making the new type of Adidas miCoach pacer, which comes with LCD screen
2. Connecting the data from the original miCoach pacer to the migotchi web page.
3. Making miGotchi mobile application for smart phones.
4. Adding new handheld machine for showing miGotchi data.

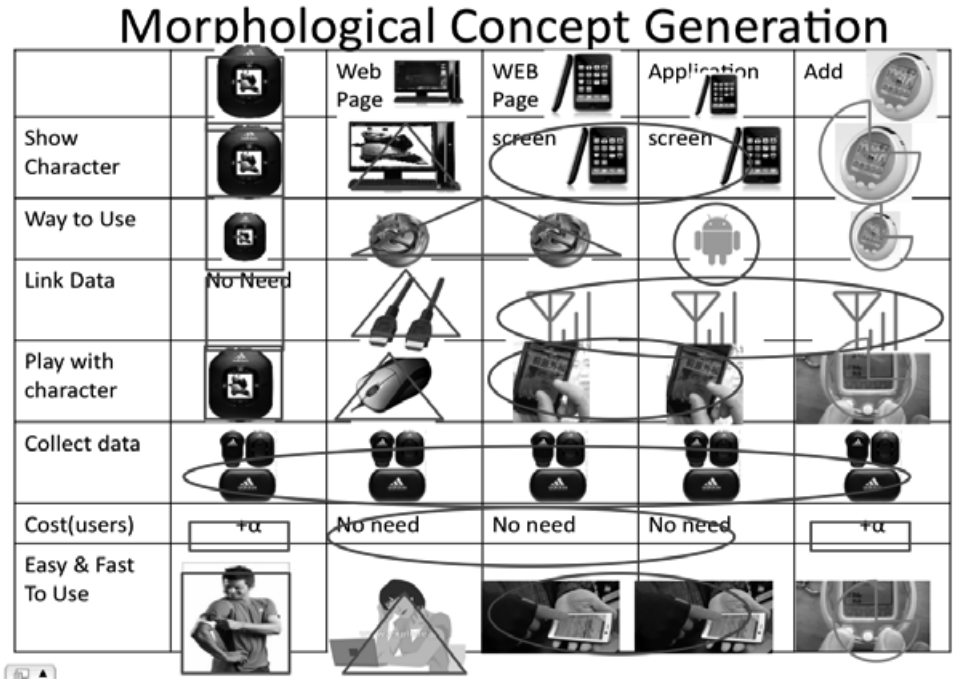


Figure 4.7: Morphological Diagram

After using Morphological diagram, since it is the most cheapest and fastest for real time interactive data, our solution is the ''miGotchi mobile application''.

4.8 OPM

We created our conceptual OPM to study and develop miCoach together with miGotchi system. Basically, running data from miCoach, itself consists of heart rate, distance, and calories that runners have burnt during their running.

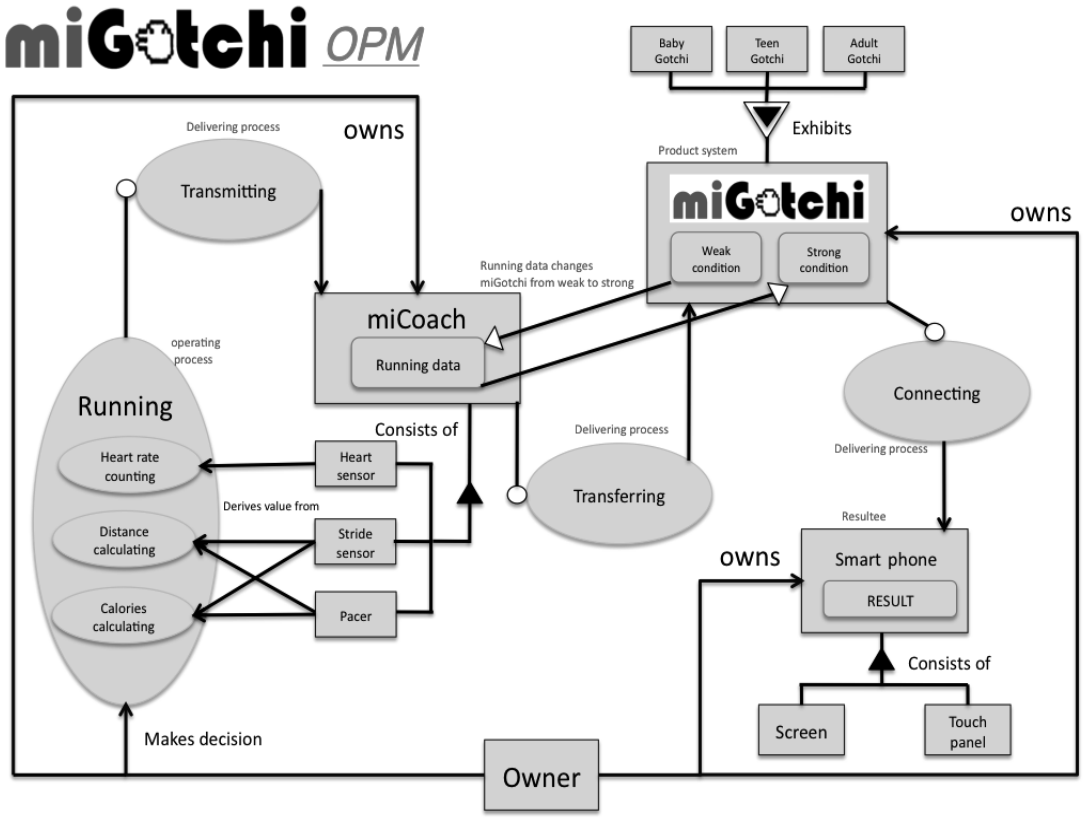


Figure4.8: Object Process Modeling

Our conceptual miGotchi will transfer those kinds of data into the interactive cute characters. Then show the results via an application of smart phone, and runners also can control their own characters by using smart phone tough screen. The benefit for us doing this was not much but helped us to visually share the whole view of the system in a team. We position this process as reaffirmation.

4.9 Pugh Selection Matrix

We used Pugh Selection Matrix to find our final concept among our various alternative concept ideas. In addition, there are two types of criteria those we considered (figure 4.9).

Pugh Selection

	CRITERIA	miBuddy	miCare	miClub	miGotchi	miSchedule	miTeam
General criteria	COST	D	S	S	S	+	+	-
	DATA TRANSFER	A	S	S	S	+	+	-
Target Group criteria	EASY TO USE	T	S	S	S	S	S	-
	FUN	U	S	S	+	-	-	+
	CUTE	M	S	S	+	S	S	S
	Sum of +		0	0	2	2	2	1
	Sum of -		0	0	0	1	1	3
	Sum of S		5	5	3	2	2	1
	overall		0	0	+2	+1	+1	-2

Figure 4.9: Pugh Selection Matrix of Concepts

First step, we considered about general criteria such as cost and transferring of data. Then, our target group (office lady with age between 18-40) criteria were considered. In this second step, we considered how easy it could be used, how fun and cute each concept was. After applying this method several times, our final solution was miGotchi. adidas were most interested in miGotchi, because they found a potential of penetrating micoach to women with it.

4.10 To By Using

We discussed about how to penetrate Adidas micoach into Japanese market. In ‘‘to’’, according to Adidas initial requirement, we thought that expanding Adidas micoach to office lady (18-40 years old) market was the most important thing that we had to consider about. Next, in ‘’by’’, we had to create a cute and enjoyable function on Adidas micoach to offer incentives for keeping up running especially to attract female users. Lastly, we will use ‘’miGotchi’’, an interactive handheld digital pet which connect and interact with an individual Adidas micoach’s data.

Figure 4.10: To By Using

4.11 Prototyping Rapidly

After selecting panda as our character for third ALPS presentation, we needed to think how to introduce its use-case on the iPhone, instead of making a real application. We used rapid prototyping mimic the real iPhone application. What we prepared are a series of images files pretending each page on iPhone which you can simply slide and see its transition. (figure4.11A)

Figure 4.11: Prototype: series of photo images mimicking the actual application pages

By making this prototype, we could get a new insight from the feedback we received. Main feedbacks we received are listed below.

”It’s better for the eyes and easier to understand”

“May get motivated and it has great chance of motivating people although it depends on how the real application would look like”

“The concept itself is good, but I personally don’t like that kind of pet thing that much.”, “Men will also like it a lot if you prepare different mode”.

Combing the insights we get on the Interview toward women, we realized we don’t need to suggest only one interface but could be more than one so that various people can find one that suits their tastes, thus continued to next brainstorming.

4.12 Score Carding

Along with making the final prototype, statement of the objective of the project was required in order to share our goal of the project. In addition we needed to confirm the key factors affecting our goal and solution in order to check whether our solution matches our goal. By using score carding (figure), we could not only state, but also share among group members what is our final goal, what are the factors we control, and what would be the measurable factors that we would test by prototype.

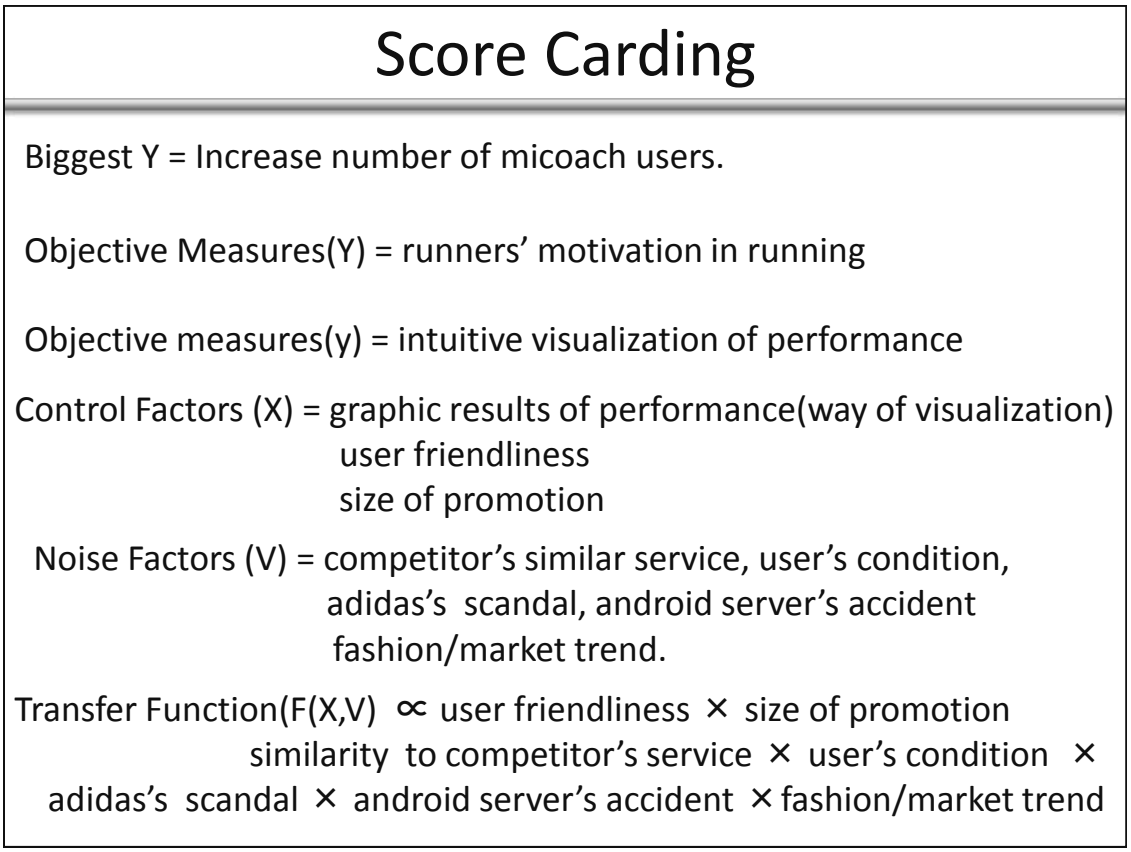


Figure 4.12: Score Carding

We concluded that our objective (Y) is to enhance runners' motivation. In order to do so, we set our control factors (x) are to improve the way of showing data, setting another way of visualization. As a noise factors, we considered competitor (Nike) making similar type of product, fashion/market trend as key nose factors. Score carding led us to clarify what should be tested on our upcoming prototype.

4.13 V&V

After adding the interactive mode into miGotchi, we conducted V&V. Purpose of conducting V&V is that we needed to check whether our final prototype could achieve the objective, which we stated in Score Carding (see figure4.13.A). We set 6 factors for V&V (see figure4.13.B). Since this is not our final product, but our prototype, validation was main purpose on our V&V.

By conducting V&V, we could find out that our interactive mode enhance the "motivation", "will to use", and "easiness to use". We could gain the credibility that our interactive concept will enable to achieve our goal we stated on the score carding.

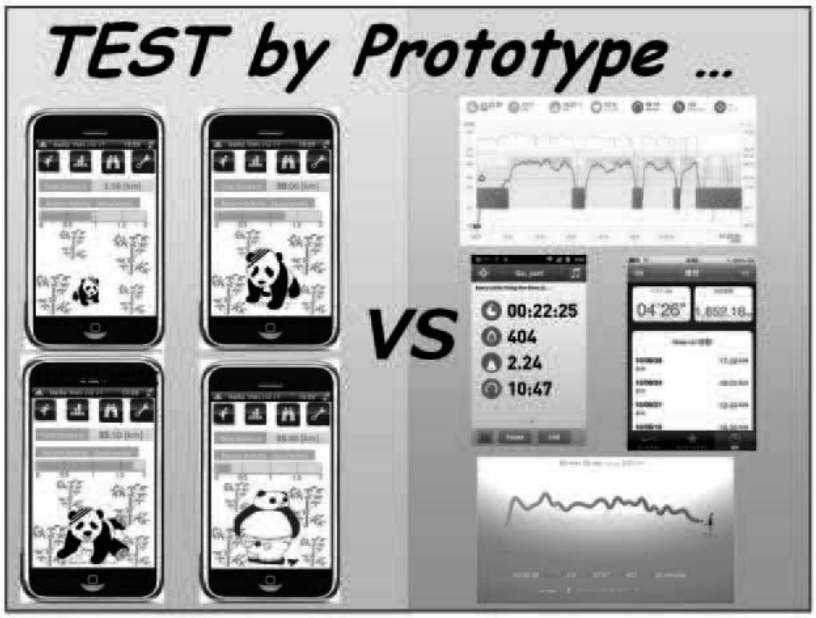


Figure 4.13.A: Purpose of V&V

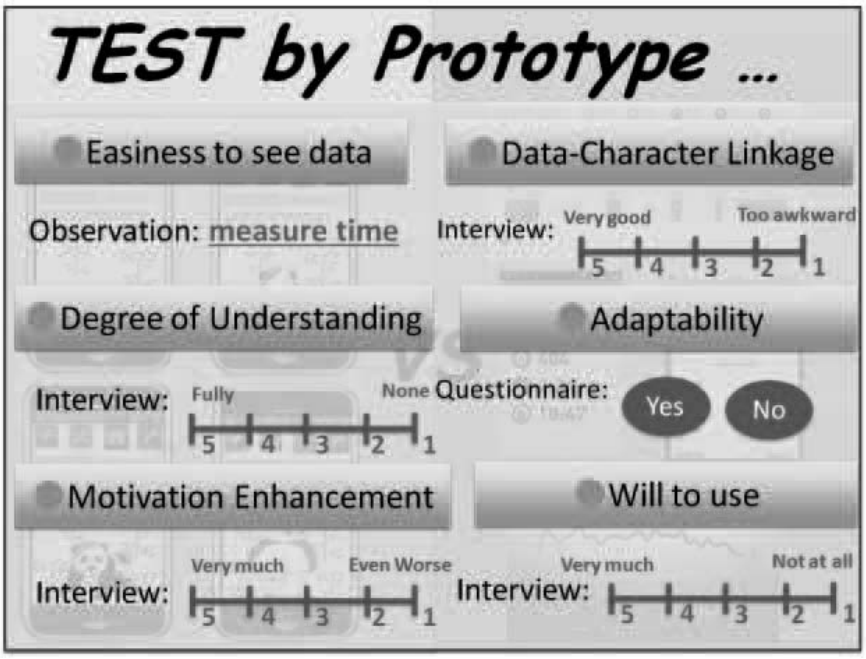


Figure 4.13.B Factors tested.

For each 6 factors, we sent out questionnaire to 30 people. Those people are picked up randomly from SDM students and runners at Koukyo (running spot). Questions we asked are listed.

* “Easiness to see data” is validated by measuring the time person needs to understand whether the change of character occurred. We passed the person both graph-type figure and character, measuring both of the time each person figure out the improvement or degraded, in other words, it means performance of running.

* “Degree of understanding data” is measured by setting a question whether person understand the change of character (figure4.13.B).

The result of V&V is listed below (figure4.13.C).

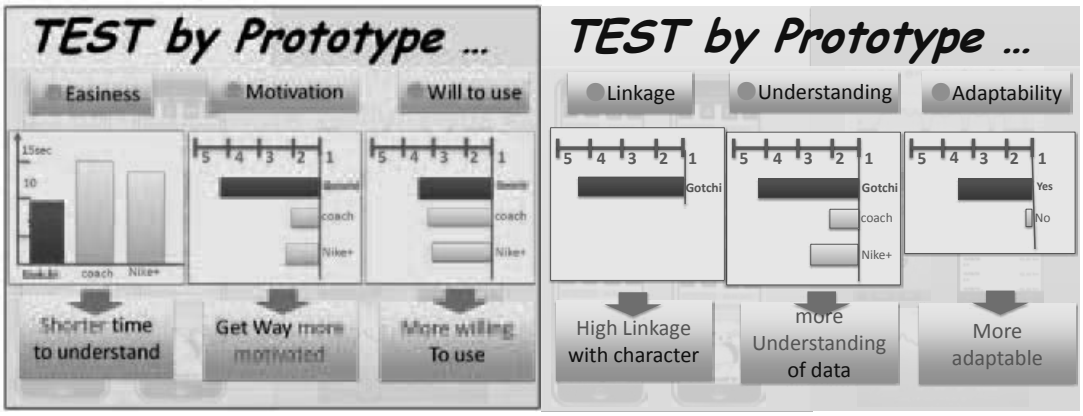


Figure4.13.C: Result of V&V

From this V&V, we could prove the following;

1. Migotchi is easier to understand comparing to current micoach or Nike+
2. Migotchi gives more motivation to runners comparing to micoach or Nike+
3. Migotchi will enhance people’s willing to use it more than micoach or Nike+
4. Migotchi makes feel the user that there are high linkages of character with running
5. Migotchi helps user to deeply understand data than micoach or Nike+
6. Migotchi is adaptable to many types of people.

4.14 Dynamic CVCA & Service Map

See COMPETITIVE ANALYSIS

4.15 Business Model

See COMPETITIVE ANALYSIS

4.16 Net Presenting Value Analysis

See COMPETITIVE ANALYSIS

4.17 Why-How Laddering

At a point, we were at a loss if the project theme itself is actually good for adidas. Depending on the higher level of purpose adidas has, dealing micoach itself might not be a good approach. There might be another innovative path that fulfills adidas’s higher purpose. We conducted value graph to doubt or rethink about the project theme which turned out to be phenomenally useful (probably one of the most valuable). As illustrated in Fig. 4.17, micoach is a smart device for

runners giving efficient training, but if the higher purpose is to “support athlete” the “how” does not necessarily need to be “efficiency”, but “safety” or “enjoyment” and so on. Similarly, if adidas wishes for better sports life and higher profit, establishing better infra or conducting sports event might be more effective and profitable. Also, when supporting athlete, why does it has to be “runners”? Depending on the reason adidas has, smart device for footballer may be more innovative. In the manner like above, we thought “why” and “How” seeking for other possibilities.

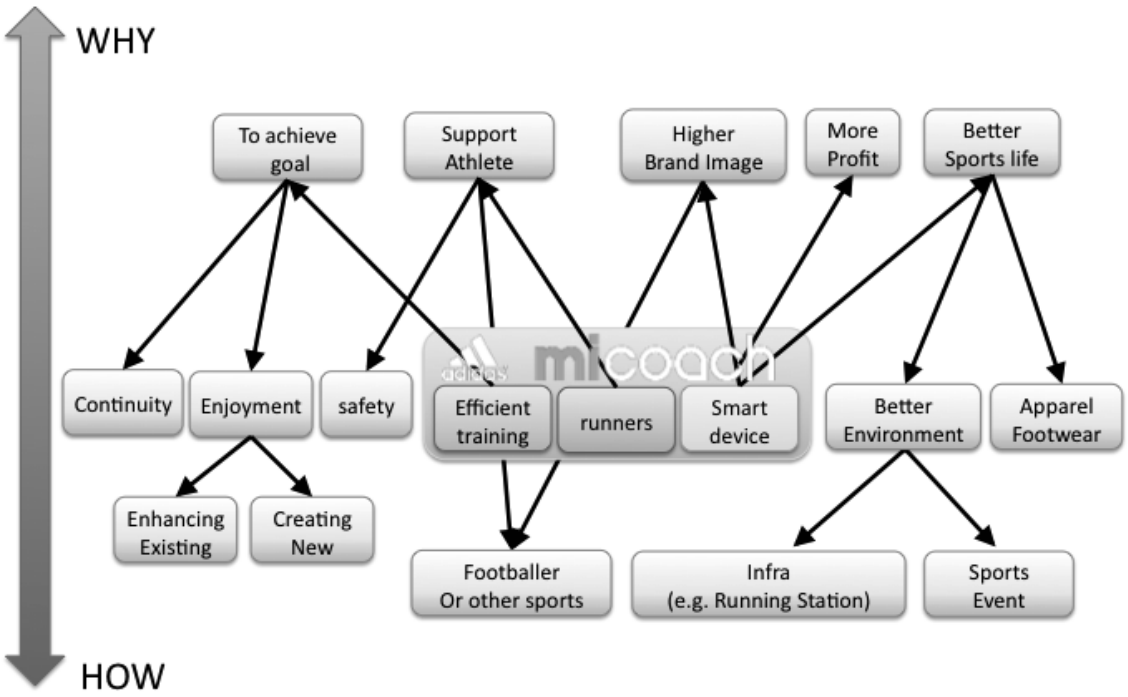


Figure 4.17: Value-graph for rethinking (doubting) original project theme

Consequently, from the figure; we saw the situation where running is basis of all sports, running is popular among people these days, refreshing infrastructure cost extremely high. From these reasons, we concluded that there are possibilities for us to concentrate on “motivation” and “fun” of running. In other words, our service must enhance people’s motivation toward running, in order to make people continue running.

5. DESIGN RECOMMENDATION

The innovation proposed by our team is a different way to picture the scientific data generated by the miCoach device. (Figure 5.1) Instead of only picturing data in this scientific manner we now offer several alternatives for the user with an additional option to compete against or play with friends. The name of this new innovation is miGotchi, which is a combined name. The first part "*mi*" has the same meaning as in *mi*Coach, which basically means "*my*", the second part *"Gotchi"* is borrowed from an old product named *tamaGotchi*, which was a pocket computer where you could raise your own pet. This part of the naming directly links to the functionality of our product where you also raise a character or pet.

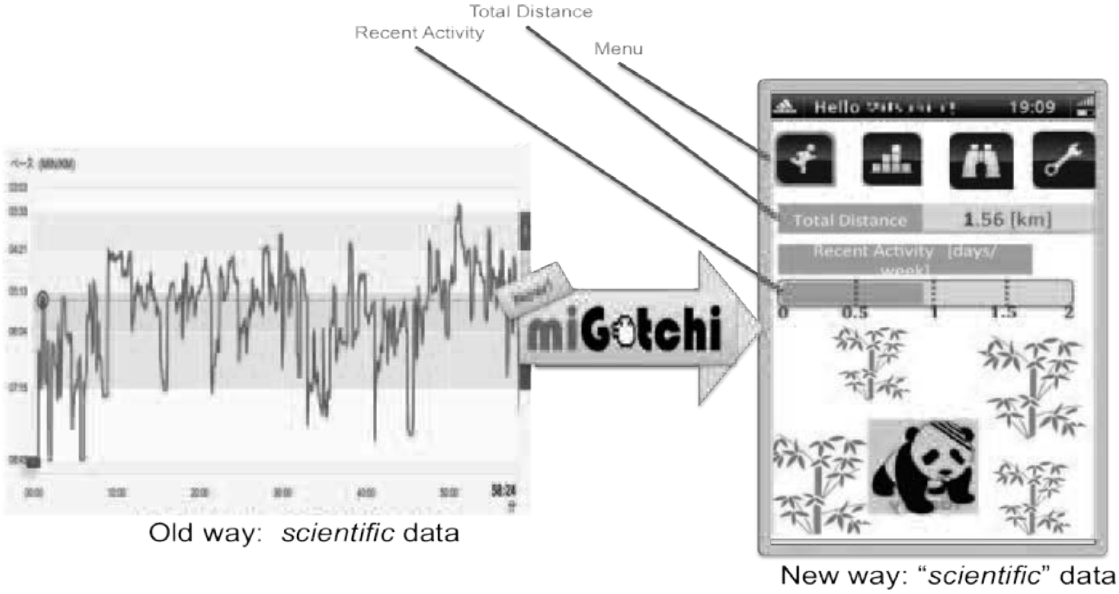


Figure 5.1: Overview of the recommended design "miGotchi"

As shown in figure 5.2 the relatively scientific graph is displayed as a panda, which is directly influenced by the users performance. The more the user runs the bigger the panda grows and at once point the panda could have children. The opposite is also true; if the user stops running the panda starts developing in the wrong way. It becomes fat and at one point it will die. Different parameter represents different expressions; for example, total "distance" can be expressed by "the size of panda", "frequency of exercise" by "condition (healthy versuss ill (dead)", and " average pace" by "the decoration of the pet's house"

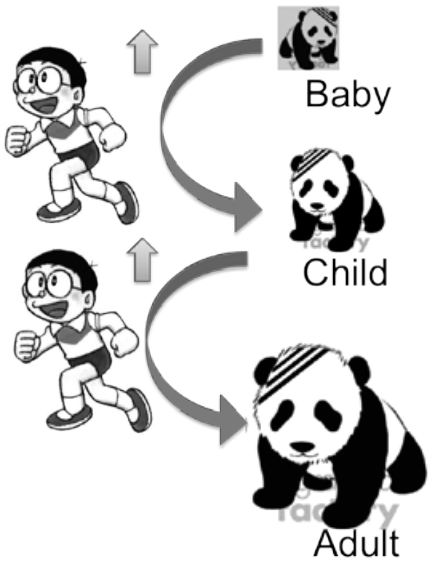


Figure 5.2 A: Run more and Grow up

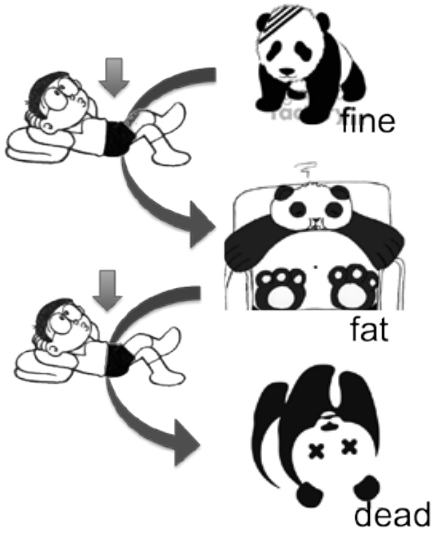


Figure 5.2 B: Being lazy and Get worse

Besides a panda, which directly reflects the user's activities, very simple scientific expression is still employed. For example the total distance that the user has run, his recent activity and a menu, which allows the user to navigate between menus. Expressing EVERYTHING in pictures will work inversely, as it lacks ability to present small changes.

The actual data presented in *miGotchi* could be considered simplistic compared to the scientific way, but it shows the main points of the data for example: if the user is doing either good or bad. The final goal of *miGotchi* is to influence the user his motivation by making him want to take care of his pet or character while improving his own physical condition by running. To make sure *miGotchi* achieves this goal more than one type of "character care" is developed to reach as many different kind of users as possible, for example *Ice skating* and *World travel* were developed.

Figure 5.3: Various kinds of mode were prepared for different people's taste

Ice-skating is a game, which involves raising an ice skater instead of a panda. The ice-skater will become better and better at *ice-skating* as the user runs more. Just like with the panda version when the user doesn't run the ice skater gets worse and worse.

World travel is a visualization of the more the user runs the further the user travels around the world. While the "distance" may stand for the distance in the virtual world, "frequency" may be used for the moving medium such as turtle/camel/donkey/pony/hours/Pegasus.

Finally there is the option for the user to raise his own football player by running, following the same concept as the panda. Imagine the video games such as Winning Eleven (from KONAMI), or FIFA (EA sports), and the situation provided to the user is where you can take care of one of the eleven players, and things fundamentally work just the same as panda. This way, the "picturing" factor may a little weak compared with other modes. This football player can then be played with in an online game hosted by Adidas. The user can play with his character against or with other users providing a social experience. By making up a team with friends, mutual motivation enhance would be obvious. A player who is very fast, strong, and useful at a point may turn out to be slow, weak, and useless one month later, which simply stands for the laziness of its user of the last one month.

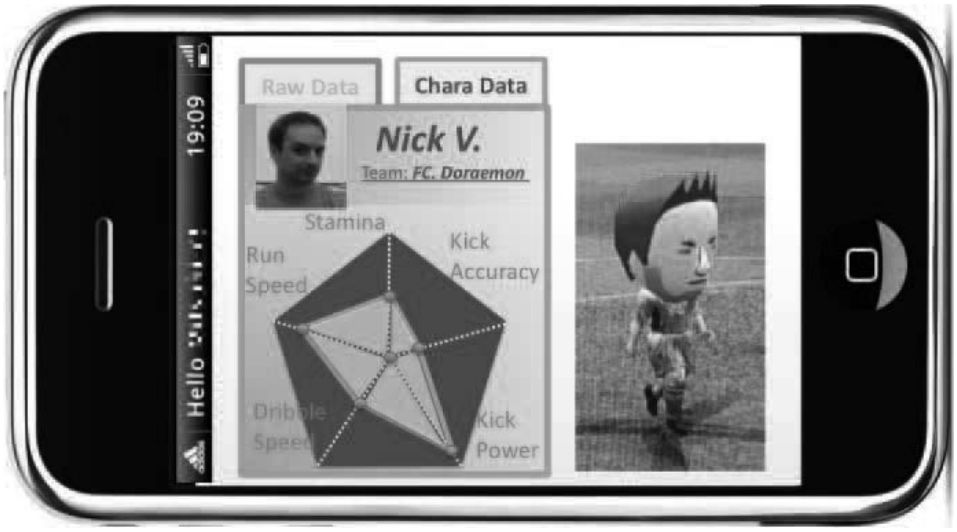


Figure 5.4: Football mode

Figure 5.5: Schematics of Interactive function

6. COMPETITIVE ANALYSIS

This chapter describes business aspect of our system, which basically consists of smaller phases of sections as follows;

6.1 Exploring business chance (done by Dynamic CVCA)

6.2 Designing business models

6.3 Profit Forecasting (along with NPV)

6.4 Evaluation of the models

6.1 Exploring business chance

The straightforward way for adidas to gain more money is purely get more people to buy micoach. This approach, however, is simply based on the existing business model where we could possibly discover new better models. Therefore, we rethought about the current model by having another look at the CVCA. Then, we reaffirmed that the consumer or the mass market is clearly the biggest source of money as well as the adidas's original target. Therefore we decided to have closer look at the interaction between adidas and the consumers by dynamic CVCA, which adds the time axis on it (Figure 6.1).

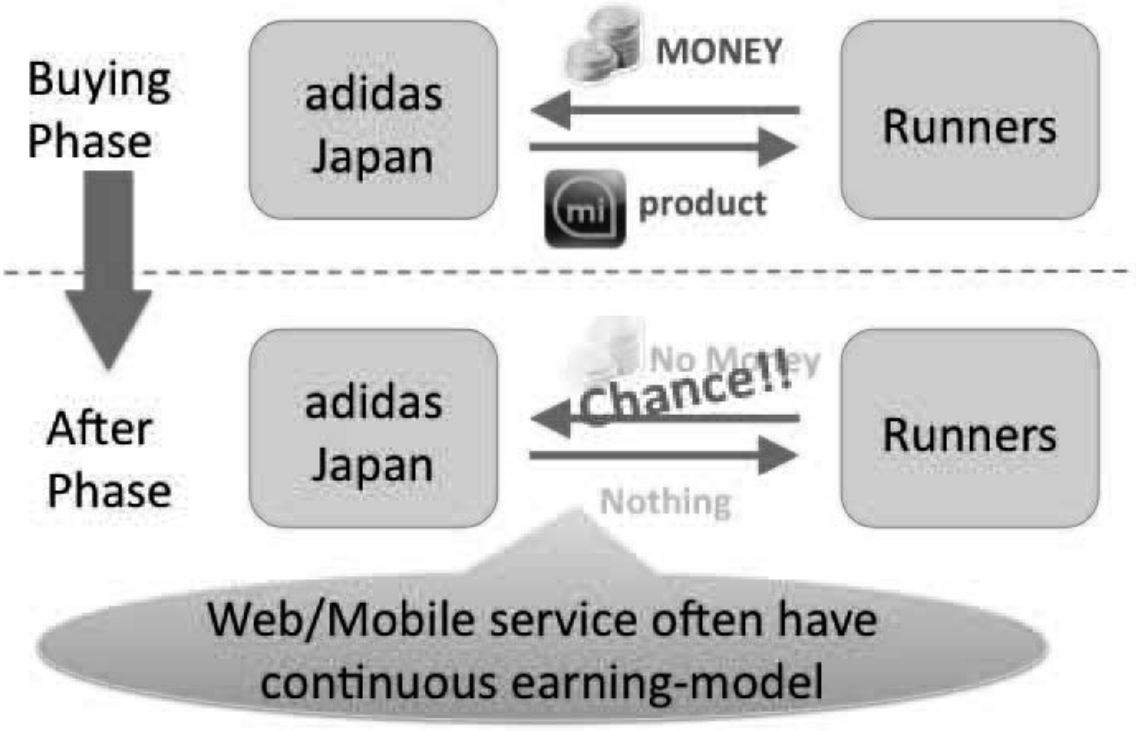


Figure 6.1 Dynamic CVCA (simplified version)

Here we once again experienced "aha" or "eureka" time; adidas gain money only when consumers buy and get hold of micoach, and no money flow will never occur afterwards. However, if you

consider the facts that micoach is an integrated service utilizing web/mobile application service in addition to the physical device, and that most of the web/mobile service company possesses continuous earning models, it is no doubt there is a massive chance for adidas to create additional earning models. We came up with two business models that are described in the next section.

6.2 Designing business models

Here we term the two business models as "Virtual football tournament model" (Fig. 6.2) and "item-based payment model (hereinafter called as item model)" (Fig. 6.3). Firstly, the concept of virtual football tournament model is, as its name suggests, simply to capitalize on the real football tournament, where footballers in teams can freely participate by paying some amount of money and winner wins some valuable prize, in a virtual environment, namely in miGotchi. The whole system is pretty much the same besides that users do not gather at a real place and exercise simultaneously altogether but individually exercise where and when they like. This model provides even more motivation for runners throughout the process of striving toward a goal with friends and the physical prize ahead there. The second model, which we call item model, is originated from the recent successful business model of mobile contents companies such as Gree and DeNA. They give away their mobile phone application games for free, and in those games, they offer variety of items such as special fishing rod in fishing game, with charging different prices. We can just simply mimic this model buy by designing golden football shoes, special pet clothes for panda, and so forth. This case the decision of the price is quite critical.

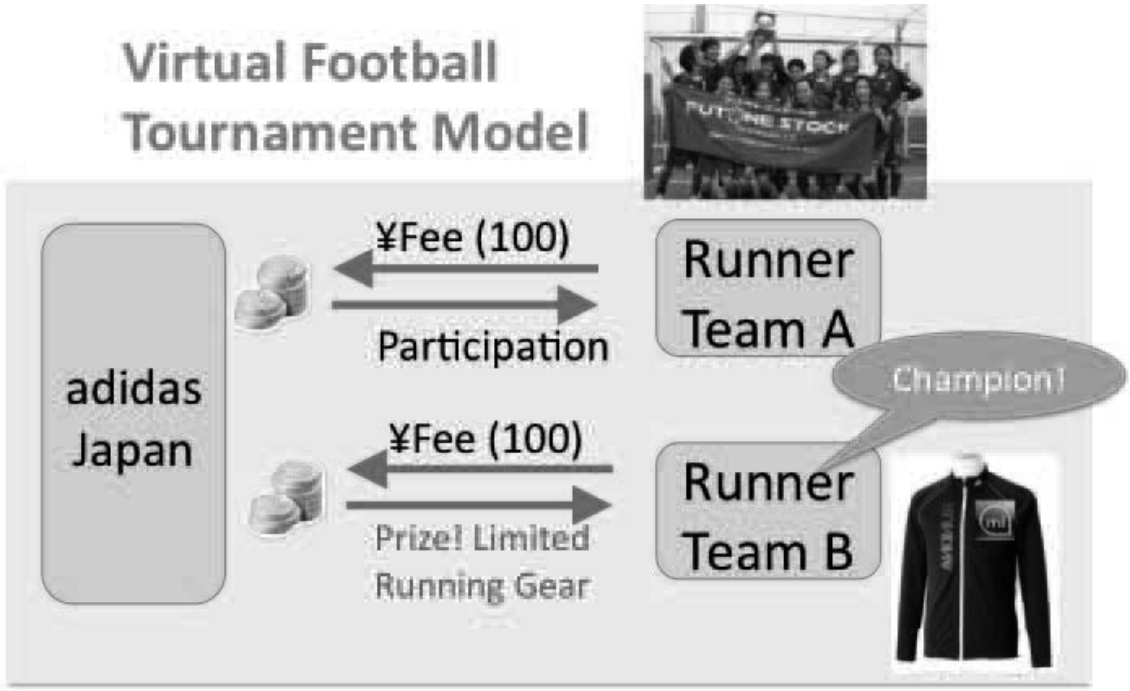


Figure 6.2 First Business Model "Virtual Football Tournament Model"

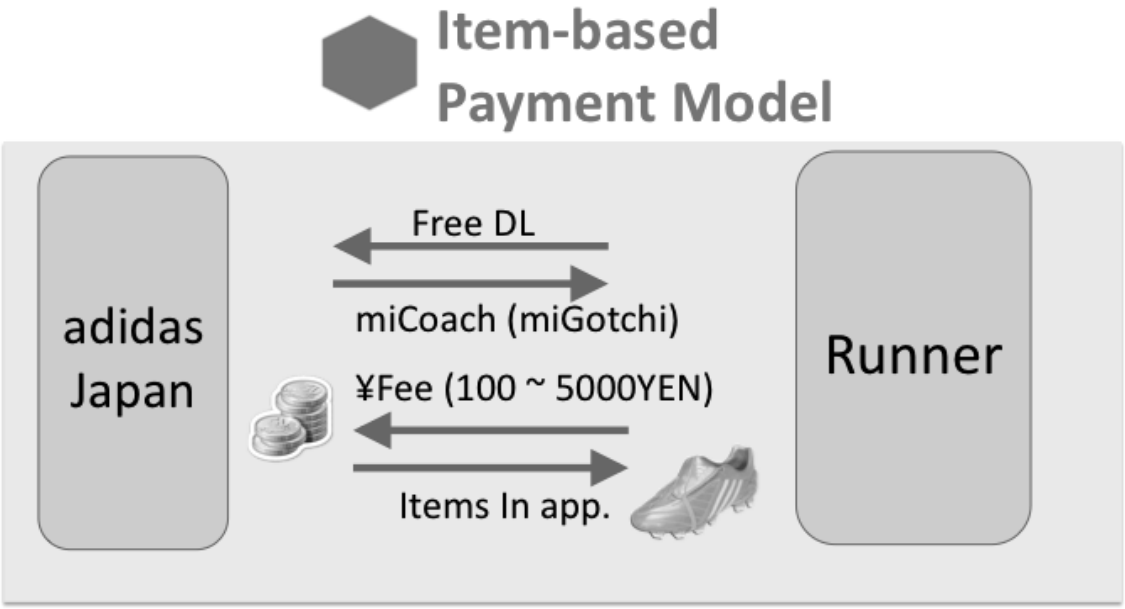


Figure 6.3 Second Business Model "Item-based Payment model"

6.3 Profit forecasting & NPV

We conducted an approximate calculation of future profit with virtual football tournament model. As for the item model, even though it holds possibility, it is highly to do with pure 'game' essence and seems considerably less effective in motivating the exercise itself. Figure 6.4 illustrates the profit and loss statement. The monthly revenue is obtained from the monthly total entrée fee of the virtual tournament, which is the product of the following factors; the number of all miGotchi users, the rate of those who participate in the tournament, the entrée fee per person, and the average number of tournament per person per month. For specific numbers, the initial number of miGotchi user is determined arbitrarily by us based on the present data from adidas, which is confidential. We set our target growth rate of both total users and rate of participation in the tournament as 1% per month, which is a little bare but realistic. The number of tournament a user joins a month is set once for convenience, which depends on more detailed system (for example, different kinds of tournament such as "Tokyo area tournament" and "High school student tournament" will leads more than once participation per person). For the loss, initial investment for developing the system (outsourcing), which is set 200 thousand yen based on one of the members' experience. We assumed two labors that are in charge of maintaining the system and paid 15 thousand yen per month. Cost of the price is also assumed to be one thousand yen and its number per month to be 10, which also increases by 1% along with the population. Given these conditions, the accumulated property in two years will be 4 million yen, which we regard as "penetrated".

Table 6.1 Profit and Loss Statement

P/L	Month 1	2	3	4	5	6
①Revenue (②*③*④*⑤)	10000	30300	51005	72121.07	93654.3609	115611.1055
②No. of All Users	20000	20200	20402	20606.02	20812.0802	21020.201
③Rate of Participants	0.005	0.015	0.025	0.035	0.045	0.055
④Entrée Fee	100	100	100	100	100	100
⑤No. Tournament	1	1	1	1	1	1
⑤Cost (⑥+⑦+⑧)	2040000	40100	40100	40100	40100	40100
⑥Initial Investment for development	2000000	0	0	0	0	0
⑦Mainenance/ Labor	30000	30000	30000	30000	30000	30000
⑧Prize (unit price * number)	10000	10100	10100	10100	10100	10100
Monthly Profit	-2030000	-9800	10905	32021.07	53554.3609	75511.10551
Accumulated Property	-2030000	-2039800	-2028895	-1996873.93	-1943319.569	-1867808.464

7	8	9	10	11	12 (one year)
137997.6196	160820.3028	184085.64	207800.2018	231970.6463	256603.7197
21230.40301	21442.70704	21657.13411	21873.70545	22092.44251	22313.36693
0.065	0.075	0.085	0.095	0.105	0.115
100	100	100	100	100	100
1	1	1	1	1	1
40100	40100	40100	40100	40100	40100
0	0	0	0	0	0
30000	30000	30000	30000	30000	30000
10100	10100	10100	10100	10100	10100
97897.61958	120720.3028	143985.64	167700.2018	191870.6463	216503.7197
-1769910.844	-1649190.541	-1505204.901	-1337504.699	-1145634.053	-929130.3334

17	18	19	20	21	22	23	24 (two years)
386950.9528	414506.551	442574.566	471162.4907	500277.9164	529928.5343	560122.1369	590866.6186
23451.5729	23686.08863	23922.94951	24162.17901	24403.8008	24647.83881	24894.3172	25143.26037
0.165	0.175	0.185	0.195	0.205	0.215	0.225	0.235
100	100	100	100	100	100	100	100
1	1	1	1	1	1	1	1
40100	40100	40100	40100	40100	40100	40100	40100
0	0	0	0	0	0	0	0
30000	30000	30000	30000	30000	30000	30000	30000
10100	10100	10100	10100	10100	10100	10100	10100
346850.9528	374406.551	402474.566	431062.4907	460177.9164	489828.5343	520022.1369	550766.6186
539559.9607	913966.5117	1316441.078	1747503.568	2207681.485	2697510.019	3217532.156	3768298.775

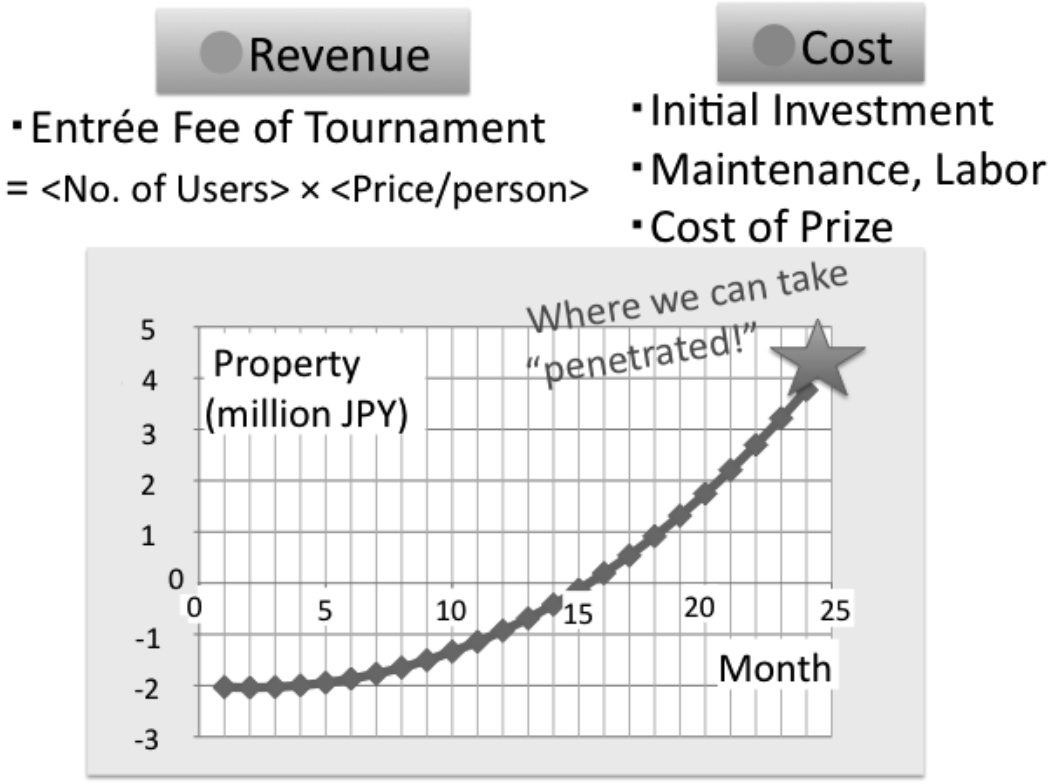


Figure 6.4 Curve of Property Forecast

To have a look at this model from another point of view, we conducted the NPV calculation. The following table shows the how it is calculated. The net profit of each year, excluding the initial investment is shown in the top line. Suppose the discount rate is 10% here, the net values converted into present values are calculated in the third line, the sum of which is the NPV. The differential between NPV – initial investment is, in the end, induced as 6million JPY. We can take this result as that this solution and its corresponding business model is worth investing.

Table 6.2 NPV calculations

	Year1	Year2
Net value in each year	1070869.667	9482775.984
Discount rate	0.1	
Net present value (of each year)	973517.8788	7837004.946
Net present value (sum)	8810522.824	
Differential between NPV and initial investment	6810522.824	

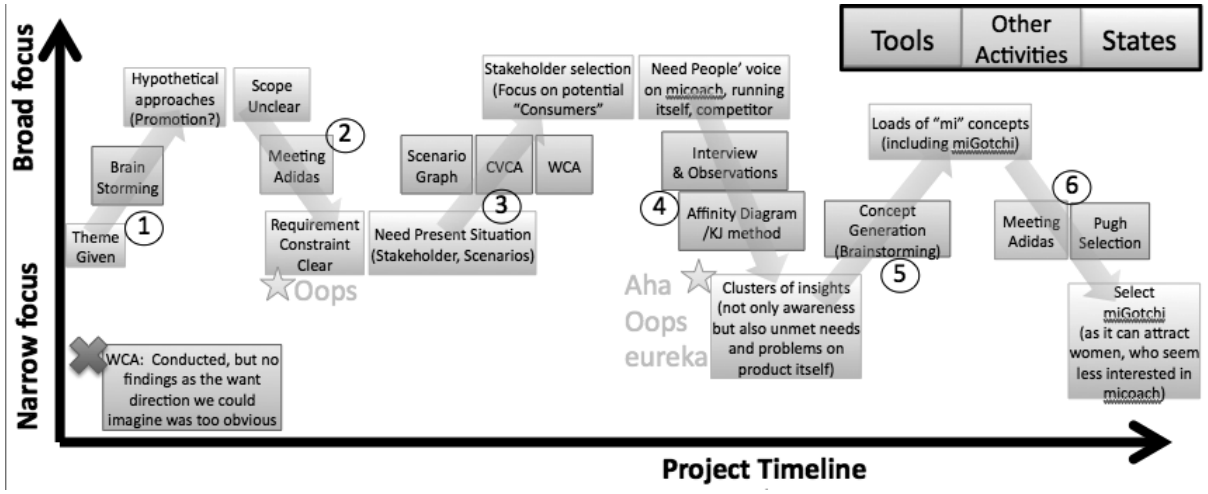
6.4 Evaluation of the model

Finally we would like to evaluate this model by following four factors; market, technical feasibility, profitability, and sustainability. Market sure holds great potential, as can be seen recent rapid growth of mobile contents business. People are more willing to use mobile games and applications along with the penetration of smart phone. Technical feasibility is also secured, as it does not possess any new hard ware or software complexity. Simply realized by iOS, android, and the conventional web service. Profitability has been considered as described above, at least in a short-term sense. In a long run, we have to deepen our strategy. Regarding the sustainability, the model of miGotchi made micoach more sustainable as it provides continuous earning model even after they paid money for getting them. However again, for longer term, we have to prepare for the case where competitors mimic our strategy.

7. ALPS ROAD MAP AND REFLECTIONS

7.1 Roadmaps

Figure 7 illustrates the overall path of our projects. We put numbers from ① to ⑭ for describing each of events. The reflection comes after ⑭ as section 7.2.



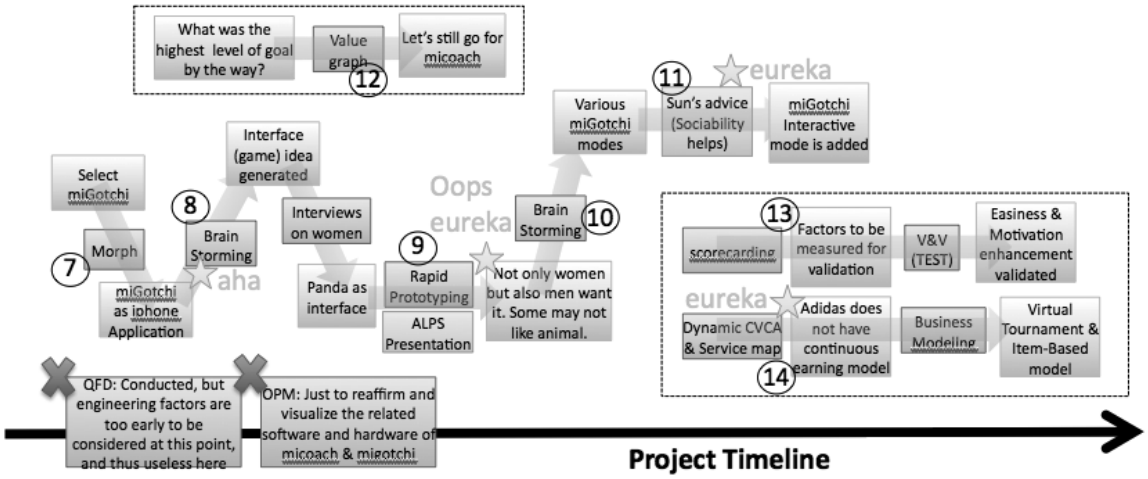


Figure. 7 Project Roadmaps

①At the very moment when we were given the project theme, even before we conducted investigation or analysis we gave it a try to think about possible approaches or solutions for this project (Such as capitalizing on heart rate sensing function for elderly people's health remote monitoring). Overall, our hypothesis at that moment was that "awareness" is the biggest issue and thus some kinds of "promotion" would be our solution. In the course of brainstorming, we came to think, "To what extent and to what direction are we allowed to go in this project? Could we go for health or other use than sports?". Then we found we need more specific requirement and constraints.

②After meeting up with adidas representatives, we understood how they set their brand image (e.g. Young) and the constraint that we have to stick to "sports", which is an "Oops" moment as we were thinking too broad an application.

③As a first step for this project, we tried to understand the current situation of micoach and its ambient environments. Therefore we conducted Scenario Graph (which let us know the lifecycle between runners and micoach from the phase of getting to know it to the phase of discarding it, and the fact that running alone at night is the most case although more and more runners run with their friends), CVCA (which let us know the related stakeholders which we would have to go interviews on such as retailer, competitor, adidas itself…), and WCA (see the details in the Chapter 4).

④We performed investigation based on observation and interviews and organized them by affinity. Then we got to know not only awareness but also some unmet needs of the product itself (e.g. intuitively understandable data) were there. This is one of the biggest insight or "aha", "Oops", and "Eureka!" moment in the project. It is no doubt that securing core value of the product comes first, and promotion afterward because promotion is ineffective if the product itself has considerable room

to improve, and also promotion changes depending on product. Following that keeping up motivation and running continuously was the biggest problem they have.

⑤However, we cannot just simply jump into conclusion and focus on a certain issue out of loads of VOC, without having consensus with adidas, so we had started brainstorming again to create loads of concepts corresponding to each VOC.

⑥Then, along with pugh selection, we asked adidas for opinions. Both activities lead to miGotchi out of loads of "mi" concepts ("mi" does not mean much). They gave us the market data, which told us that 80 to 90 % of the micoach users were male and directed us to targeting female. Along with it, adidas was most interested in miGotchi, because they found a potential of penetrating micoach to women with it.

⑦We thought about different forms of miGotchi by morphological analysis, such as web application, smartphone application, and make entirely new physical products, which ended up in smartphone application basically because of the feasibility and cost.

⑧Then we had closer look at the micoach interface, including how we express the scientific data. We thought three factors; what parameter to be employed (important), what kind of character or game would be easy to see as running data, and what kind of graph or number should be still used. For the parameter, "aha" time was again with us; "frequency of activity" is obviously an important parameter because adidas want runners to run more "often" and runners want to run continuously (=often). After having an interview on what interface is the most popular among women, we got to panda.

⑨Then we made rapid prototype. To mimic the real iPhone application, we prepared a series of images files pretending each page on iPhone which you can simply slide and see its transition. Then we got a rough feedback saying "it's better for the eyes and easier to understand", "I may get motivated and it has great chance of motivating people although it depends on how the final real application would look like", and "the concept itself is good, but I personally don't like that kind of pet thing that much", "men will also like it a lot, if you prepare different modes". We realized we don't need to suggest only one interface but could be more than one so that various people can find one that suits their tastes. This change of direction was supported by double-checking the market data; when we saw the data at ⑥, unfortunately we only looked at the men-women ratio, ignoring the size of the pi. What told us is the size of the pi was small enough to infer that common barrier is still way larger than the barrier unique to women. We still have to target broader segment of consumer, not only ladies. Here is another "Oops".

⑩Then we had another brainstorming for other game modes or interfaces. We tried to be careful for the characters or pictures to be easily recognizable. For example, we employed “ice skating” as a mode” because it holds distinguishable techniques such as standing/skating/back skating/jump that let users understand the parameter change easily. Another example is Sugoroku because the distance on the virtual map represents your performance in a very clear way. Small change in a picture would not be recognizable, which may result in difficult data interface to assess.

⑪In the fourth alps workshop, Sun Kim pointed out that sociability holds a great potential for enhancing even more motivation, enjoyment, and better penetration. Then we employed the interactive system that has already been come up in the concept generation of ⑤. This was clearly a “Eureka” time because we as a consumer thought “I REALLY WANT THIS SYSTEM!!” AN AMAZINGLY FUN TIME.

⑫Dating back a bit of time, in the course of designing miGotchi by the way, we once got in the labyrinth being uncertain about our solution. The concern went back to the origin of the project theme; “is really micoach an ideal service for people?” “how did adidas arrived at micoach by the way?”, “what is the higher goal or purpose of micoach? Even micoach might be a prototype for adidas ahead of future smart devices”. Then we conducted value graph (or we prefer to call why-how laddering though) in order to make the purpose of the theme clear once again. Then concluded that we still go for micoach because running is the most growing market segment in Japan, and its system holds rooms for adding “enjoyment” or “motivation”, which overall does not strongly argue for going to another service.

⑬Along with making the prototype, we did score carding to once again make sure what is our final goal, what is the factors we control, and what would be the measurable factors that we would test by prototype. Then after clarifying the test items, we had V&V the results are as the last presentation slides show.

⑭Also, along with the prototype, we sought for business plan and model. By having service maps and dynamic cycle (only between adidas & consumer), we figured out adidas earn money only when consumer gets the products (no money flow occurs afterwards). However, normally web/mobile Service Company have continuous earning model, (remember that micoach is also a web/mobile service). This is the last “eureka” time. Therefore here is a business chance to address. Then made two business models: one is virtual football tournament model, and the other is item-based payment model.

7.2 Reflections

The reflection is made out of the idea “If we were to try the project again we would do….”. We listed up these as follows.

a) Apply value graph (or why-how laddering) to the given theme

b) Investigate in both macro and micro way.

c) Sound preparation and iteration for VOC collection

d) Way more massive effort on interviews and observations

Firstly, it is of greatest significance, in our opinion, to deeply think about the “theme” of your project. Specifically speaking, must consider “why did your client want to solve the problem” or “is it really a problem?” or “how did they arrive at this theme?”. Value Graph (or Why-How Laddering), we believe, is a very strong and robust tool to clarify these matters. We got to do this at ⑫, but it was obviously late to consider. Although we fortunately overcame it somehow, it is just in hindsight, and could have brought us to square one, as the case may have been. Definitely this event should be done at the very beginning, no matter what kind of project it is.

Secondly, when we were to start investigation, we only had a micro view for the problem, namely looking closely at consumers and runners with their voice and behavior. However, as we had decision-makings at ⑥ and ⑨, macro view i.e. Market data, was very important. The sooner you analyze it, the better hypothesis would be gained in the earlier stage, which enables you higher quality of interview or observations.

Thirdly, before we go for interviews, we should have organized our questions way more. The time runners wish to spare for us is limited, therefore it is important to give clear reasons to “why do you ask this question? What kind of benefit or hypothesis do you expect by the question?”, and give priorities to all the questions. In the earlier stage of interviews, we had too useless questions without having any clear reasons.

Finally, not all but many of the group member felt that the INSIGHT you acquire from consumer determines 80% of whole project quality, especially in this kind of marketing project. No matter how far the project proceeds, INSIGHT is always your footholds. If the key INSIGHT is strong and specific enough, the solutions you raises when brainstorming would be very specific as well, and vice versa. If we were to try similar project, we would NOT proceed with our project and keep patient before we secure a clear strong INSGHT.

8. CONCLUSIONS AND FUTURE WORK

This section contains following parts

8.1. Our current output against the final goal

8.2. Problems to overcome and plans for further work

8.3. Project timeline

8.1. Our current output against final goal

In this report, we proposed a solution miGotchi that expresses your running performance in a picture-based image, with some factors of a video game; it helps runners to keep a higher motivation more continuously. The solution holds an innovative synergy and symbiosis between running, a proper physical exercise and video games. Previously, the input to the video game was simply pushing bottoms of the controller in front of TV (Fig. 7.1). However, micoach with our solution miGotchi, the physical proper exercise can be the input to the video game! People take care of something like a character in the game by actually doing the exercise, which then properly induces sweat and fatigue. This is very different from the existing games such as Wii sports in a sense; it does not let you do the PROPER physical exercise.

Figure 8.1: Synergy and Symbiosis invented by miGotchi

We conducted V&V on miGotchi and confirmed that the following factors are important.

・Easiness to see data
・Data-Character Linkage
・Degree of Understanding
・Adaptability
・Motivation Enhancement
・Will to use

For the business models we considered, we conducted NPV (=6.8 million JPY), which indicated that miGotchi is not only profitable, but provides adidas with the continuous and sustainable profit, which no other sport manufacturers has obtained yet. We could conclude that miGotchi is beneficial to both adidas and runners.

8.2. Problems to overcome and plans for future work

In order to gain investment and put miGotchi out on the market, we have to broadly clear the following steps;

2.1 Rethink of the parameters to show on miGotchi interface

2.2Design application of miGotchi

2.3Conduct V&V of prototype

*Key tools are highlighted in order to show importance of the tools

2.1 Rethink of the parameters to show on miGotchi interface

As parameters to show on miGotchi interface, we have currently selected "frequency rate" as most important in order to motivate runners to run more frequently. From the feedbacks we got from the presentation, we should determine the following as next steps; if any other parameter is more important than "frequency" or not to achieve our objective, the way to show those parameters on miGotchi interface. We are planning to conduct value graph in order to solve this problem.

The topic of this value graph will be "Parameters and Interfaces to increase frequency of running." By using Value-Graph, we are planning to reconstruct which parameters should be included in order to achieve our objective. Plus, we should list up VOCs and engineering metrics to check whether they follow our objective.

Then, we should continue to make QFD i and QFD ii in order to evaluate engineering metrics and design construction of the miGotchi interface. We should use VOCs and engineering metrics, which we discussed in Value-Graph.

From these steps, we will be able to understand till what extent we should rely on numerical data or character figures, which makes it possible to finish designing the interface.

2.2Design application of miGotchi

Creation of smart-phone application is required since the final solution of miGotchi shall be a smart-phone application. We should achieve that goal by using the following method; rapid prototyping.

It will be efficient for us to create some demo prototypes of miGotchi for the final application. This is because since miGotchi will be created with zero prior experience, we should create prototypes to confirm its functionality.

2.3 V&V

After we create the application, we should conduct V&V in order to confirm the following.

・miGotchi shall work properly as we planned on several type of smartphones
・miGotchi is downloadable from the smart-phone application market
・miGotchi shall be able to be installed on smart-phones
・miGotchi shall be able to be deleted from smart-phone

8.3. Project timeline

Figure () shows the project timeline for the project to be finished.

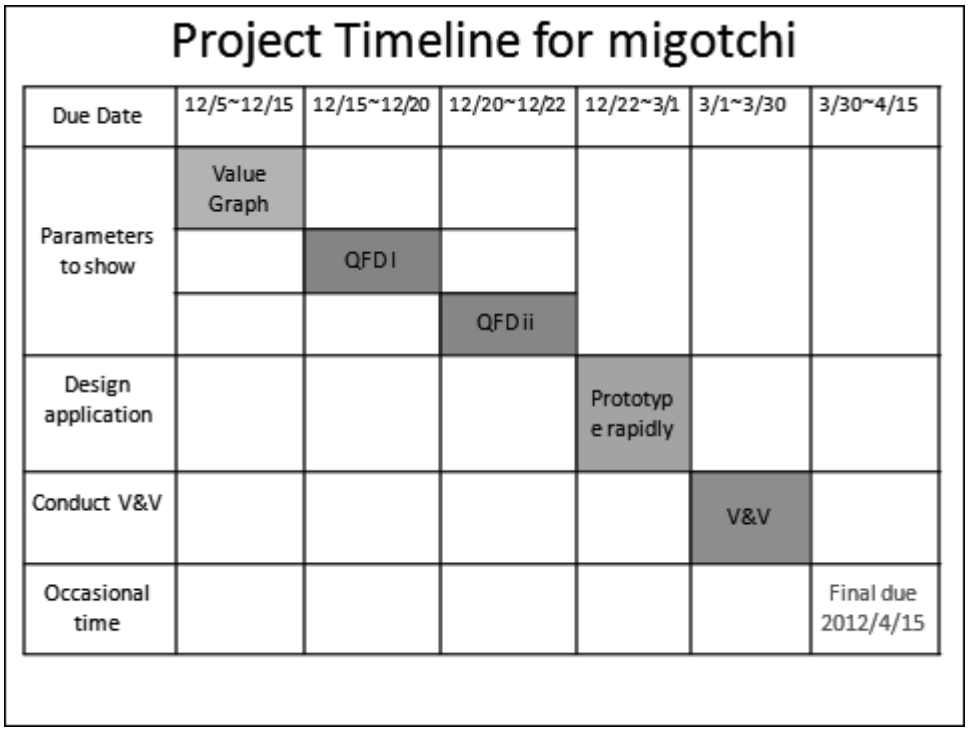


Figure 8.2 Project Timeline of miGotchi

As you can see we are planning to complete creating and testing the smartphone application of miGotchi until 2012/4/15. Occasional time has been set in order to correspond to unexpected problems.

Problems and correspondence are;

・same type of product would be sold by our competitor

⇒continue to finish on time, but be aware of copyrights competitors protects

・Not knowing how to design our application due to cancellation of contract with football game company.

⇒find other game company who has know-how of making foot-ball games

・adidas stopping project due to unexpected reason.

⇒change name of project from mixxxxx to something else for copyright.

We believe that this project is profitable, thus we are looking forward to see it industrialized. Any investment is highly welcomed.

9. ACKNOWLEDGMENTS

We would like to thank Ito-sama, Yamashita-sama and Hoshi-sama from adidas Japan for the kind sponsoring and thoughtful care throughout the project.

During ALPS, our mentor—Minato-sensei gave us loads of advices and comments, which were not too directing and thus always encouraged us to think ourselves using our head. We really appreciate his great help and feel very lucky to be assigned in his team.

Last but not the least important, we want to give our sincere thanks to Prof. Kim Sun, Prof. Kurt and all the professors who taught us a lot on everything. We have really learnt a lot.

Many thanks to who helped us during the project and forgive us not listed here one by one.

10. REFERENCES

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11. APPENDIX

XXX: QFD

We also made two QFD as the figure below. First one (FigureXXX, QFD1), we matched customer requirements those we got from several interviews to the engineering functions. Then, the second one (FigureXXX, QFD2), we matched QFD1's engineering functions to the part characteristics. Part characteristics mean which way we should show our miGotchi data in order to fit the engineering functions best.

	Engineering Metrics					
Customer requirement	weight for custmor	Graphic	size in KB	human science test	control features	Memory
requirement						
Character Display	9	9	3	9	1	
Link data with Character	3	9	3	1		
fun	9	1	1			
easy to use	3	9	3	3	9	
reliable	1				3	9
total points		144	54	93	39	9
between themselves		0.42	0.16	0.27	0.12	0.03

	Part Characteristics				
Engineering Metrics	Phase I relative weight	GUI	Touch Panel	Program	smart phone
requirement					
Graphic	0.42	9	3	3	3
Size in KB	0.16	1	3	3	
human science test	0.27	1	1		
control features	0.12	3	3	9	9
memory	0.03			9	3
total points		4.57	2.37	3.09	2.43
between themselves		0.37	0.19	0.25	0.20

But after discussion, we all agreed that QFD was too early for our case. Most of QFD's data are too in detail. Therefore, we used other methods to find out our final solution. However, we all agreed that learning to create and understand how to use QFD will be very useful for us in the future work.

XXX: Others method

Same as QFD, there are some methods, which we considered that they are all useful for miGotchi but we did not use them. The reason is that some of them are too early in our case. Also, we did not have enough data to create some. In other words, those methods should be done in the next stage after we have permission and all needed information as well as data from Adidas. Those methods are shown as the following.

Design for variety (Product Structure Graph)

DFV Complexity Chart

Design Structure Matrix

Project Priority Matrix

Design of Experiments

Functional Diagram and Structure Tree

Group A’s Final Presentation Slides

Final Presentation

Project Theme: Market penetration *of athletes' support device "miCoach"*

Group A × adidas

Final Presentation

Group A × adidas

"Persona" is…

- desires to be **slim** and **fit**
- be physically **strong**
- exercise **continuously**
- but is **Lazy** and **Slow**
- and easily **gets bored**

Present "micoach" is…

Measure Performance

Voice Coach

Training Plan

VOC & Observation…

VOC & Observation…

To Whom?

- Potential Consumers
  - Runners
  - Other Sports
  - No exercise
- Other Stakeholders
  - Retailer
  - Competitor

About What?

- micoach
- Competitor
- Running

VOC & Observation…

Affinity Diagram & KJ method

"Aha" and "Oops"

Promotion won't be our primary solution because **product itself** does not successfully meet runners needs

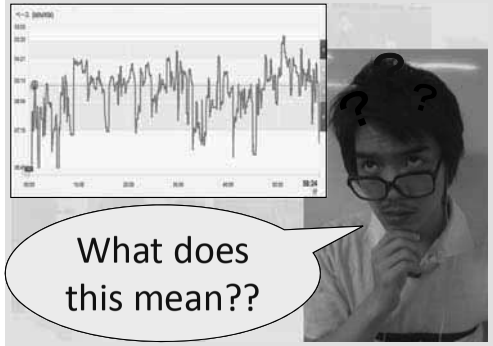
Insights & Issues …

Key

Positive Insight on micoach

Strongest need is to **monitor performance**

Insights & Issues …



Key

Negative Insight on micoach

Data is difficult to understand.

Keeping up motivation is very tough

Hypothesis & Goal are…

To

Final Objective:
Penetrate micoach way more

By

Investigation & Analysis

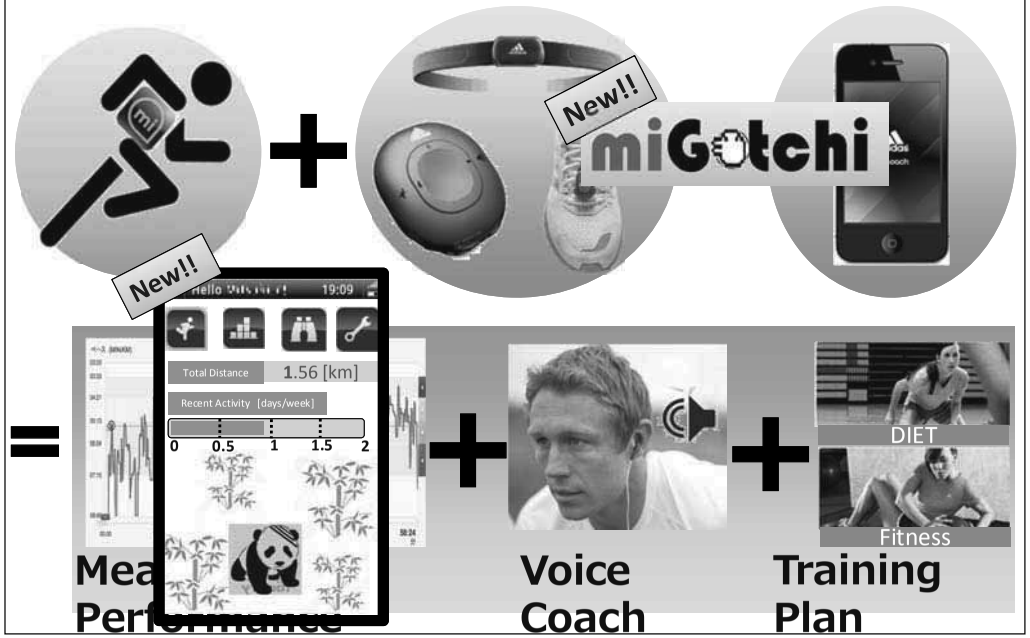
Our Objective:
Intuitive Data, Motivation support

Using

Concept Generation

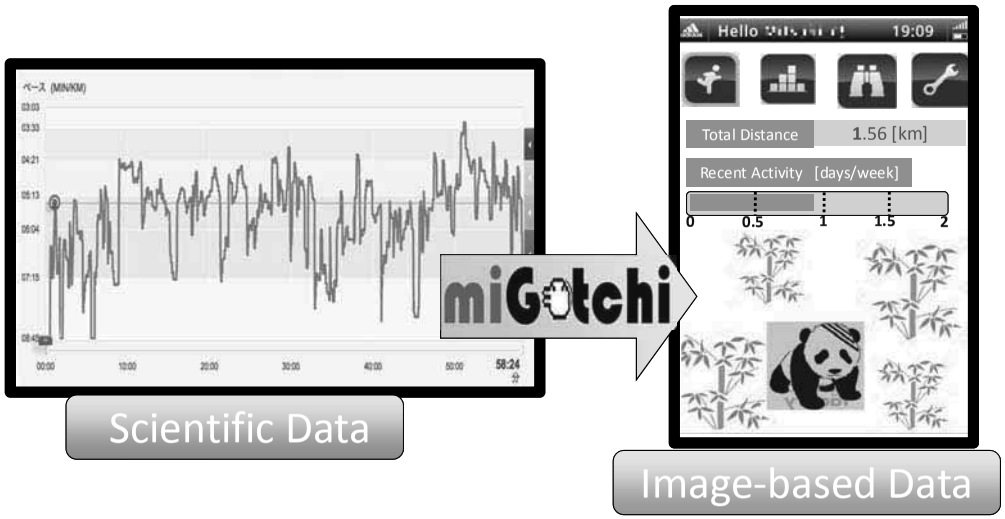
Solution = miGotchi

Our solution "miGotchi" is…

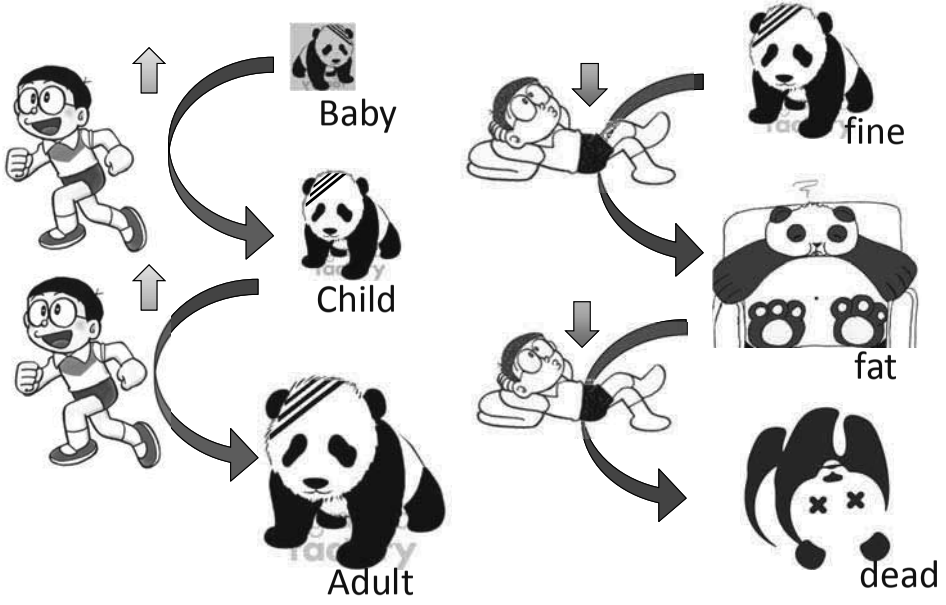


"miGotchi" …

picture your performance



"miGotchi" is …a mirror!



How'd you be using

miGotchi

"miGotchi" is unlimited...

Panda is just one example...

"miGotchi" is ...Adaptable!

"miGotchi" is… Interactive!

miGotchi Interactive

Connect your Character

Our Solution is…

miGotchi: New function of micoach to transfer Running data into Game (Picture)

Innovative **Synergy & Symbiosis** between **Running** and **Video-Game**

TEST by Prototype …

TEST by Prototype …

- Easiness to see data
- Data-Character Linkage

Observation: **measure time**

Interview: Very good 5 4 3 2 1 Too awkward

- Degree of Understanding
- Adaptability

Interview: Fully 5 4 3 2 1 None

Questionnaire: Yes / No

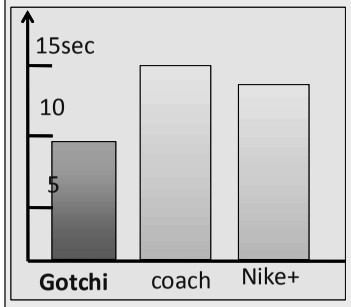
- Motivation Enhancement
- Will to use

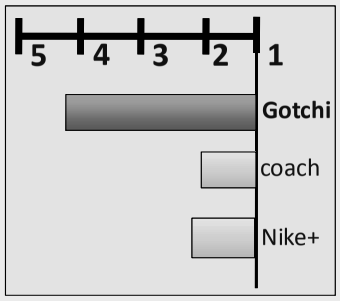
Interview: Very much 5 4 3 2 1 Even Worse

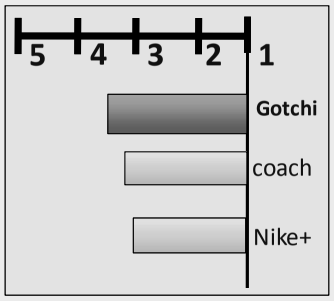
Interview: Very much 5 4 3 2 1 Not at all

TEST by Prototype …

- Easiness
- Motivation
- Will to use





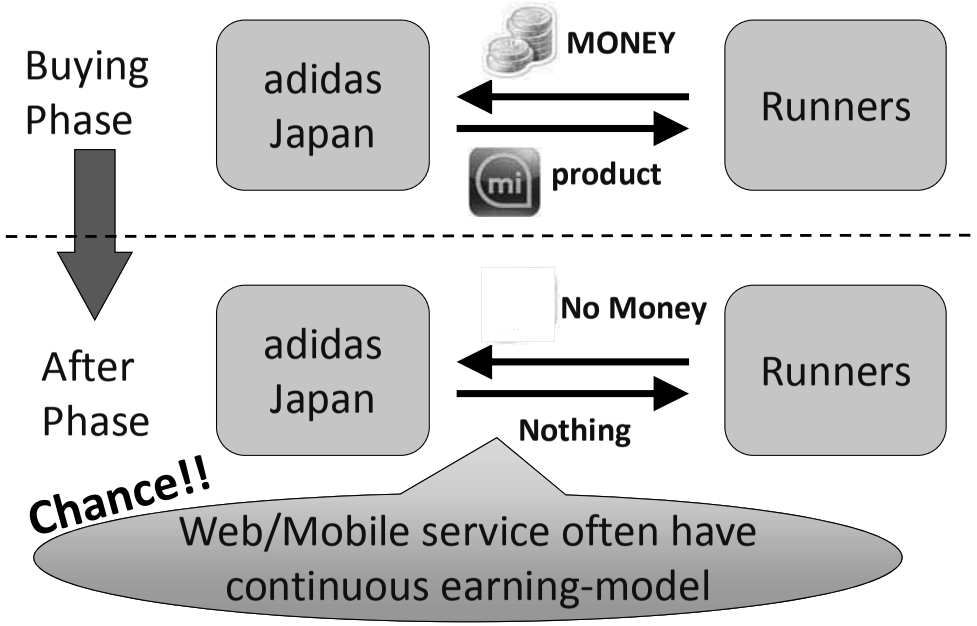


Shorter time to understand

Get Way more motivated

More willing To use

Business chance by DCVCA…



Business Models …

Virtual Football Tournament

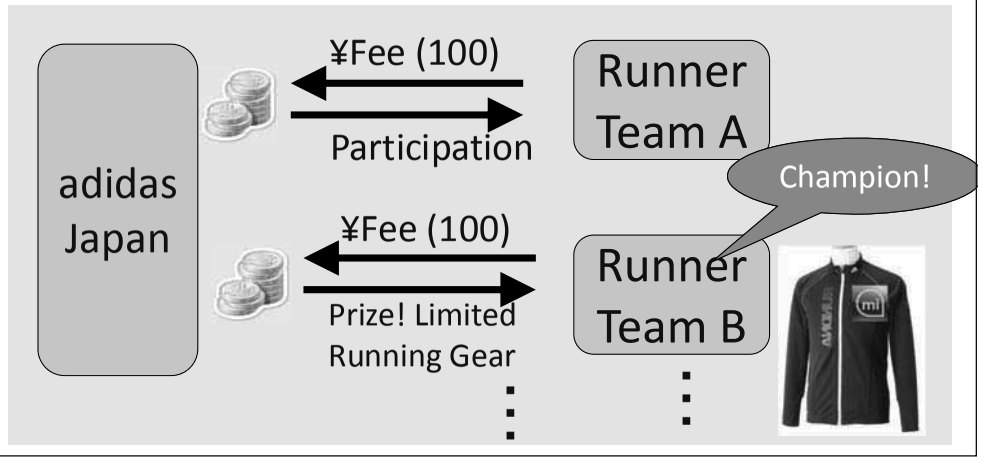
GREE

Item-based payment model from mobile games

Sales combined with apparel or other goods.

One Business Model …

Virtual Football Tournament Model



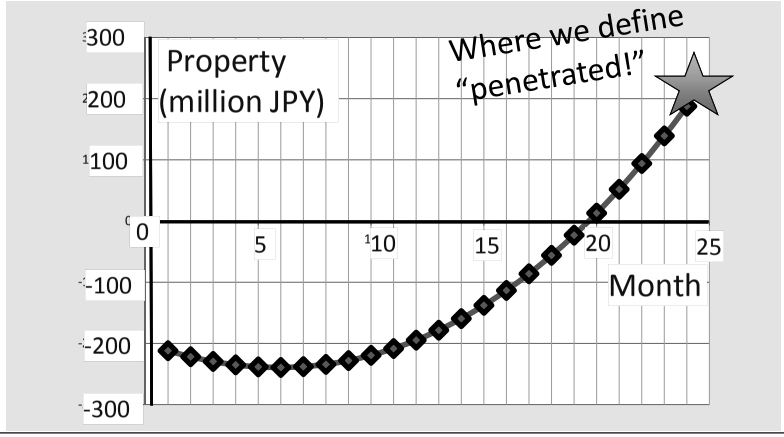
Profit forecast …

Revenue

・Entrée Fee of Tournament
= <No. of Users> × <Price/person>

Cost

・Initial Investment
・Maintenance, Labor
・Cost of Prize



Thank you adidas
Thank you SDM
Thank you all !!

Profit-and-Loss statement

P/L	1	2	3	4	5
①Revenue (②*③*④*⑤)	10000	31500	53025	74977.35	97363.4445
②No. of All Users	20000	21000	21210	21422.1	21636.321
③Rate of Participants	0.005	0.015	0.025	0.035	0.045
④Entrée Fee	100	100	100	100	100
⑤No. Tournament					
⑤Cost	2130000	130000	130000	130000	130000
⑥Initial Investment for development	2000000	0	0	0	0
⑦Mainenance/ Labor	30000	30000	30000	30000	30000
⑧Prize (unit price * number)	100000	100000	100000	100000	100000
Monthly Profit	−2120000	−98500	−76975	−55022.65	−32636.5555
Accumulated Property	−2120000	−2218500	−2295475	−2350497.65	−2383134.206

Target :miGotchi user increases by 5% each month

Growth :Participants increases by 1% each month

Investigation ① (Market)

Potentials

◯the number of runners

1< in a week 4470,000

1> in a week 4360,000

*笹川スポーツ財団，スポーツライフデータ 2010

◯distribution of runners

	10	20	30	40	50	60↑	10	20	30	40	50	60↑
	6	11	12	9	10	12	5	8	6	6	5.5	9 %

*レジャー白書 2004-2009

●potential target Volume
2270,000

Present

◯Pacer sales= 1700
(=0.07%)

90% = Men
(age of 30's~40's)

◯application download
= 20000

90% = Men
(80% = 30's~40's)

Long-term Strategy

Runners → Other Sports → Non-sports

micoach — Common needs related to Core Value

- Visualize
- Motivation (& support continuity)
- Enjoyment
- Degrade (rethink functionality)
- Promotion

Smart device for Soccer

SD for ~

SD for ~

Investigation ② (Consumers)

●VOC on "Running" and "micoach"

Interest toward running

Runners

Running: several needs according to target.

micoach: robust common needs =monitoring

Other Sports

Running: running is not main objective.

micoach: needs of measuring performance cannot be difined.

Non-sports

Running: different level of barrier.

micoach: focus on fun.

Investigation ③ (Runners)

●VOC on Runners (primary target)

micoach Needs

- measure performance
- gaining habitant to train
- efficient training

Common needs

Running Prob.

- can not continue

Micoach can solve

- not funny(runnning)

micoach Prob.

- function complicated & difficult
- unemotional data (×toward motivation)
- worth buying?
- not wellrecognized

Core Value

- environment (shower/locker rooms)
- bulky gear