

Innovation Design Processes to Achieve Ideal Form of Insurance Sales Device

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Design proposals for devices that have been desired in recent years are expected to make suggestions from the viewpoint of what good effect they have on scenes of use by users in addition to simply providing forms of devices that meet functional requirements. In order to meet customer wants as well as needs, Fujitsu Design has established a technique of innovation design consisting of four processes: grasping the current situation, understanding the ideal, making an overall plan, and designing the device. This technique makes it easier to identify potential needs and wants based on detailed forms of usage by customers, and thereby propose solutions and device designs that match them. This technique not only offers devices but also the experience of using the devices. This paper presents a case of developing an insurance salesperson's device as an example of design development based on customer understanding to describe Fujitsu's technique of innovation design.

1. Introduction

The conventional process of designing a device is premised on the functions and specifications of the device and the designer then studies the shape and usability according to those premises. Unlike this, the innovation design presented in this paper approaches design by first clarifying the actual conditions of the customer and future ideal, and is not based on the premise of the device. Then, the solution that is best suited to the customer's way of working is identified, and based on it a device design is proposed that is more appropriate for the customer's business.

This paper takes as an example a proposal developed through roughly four processes in the development of an insurance salesperson's device and explains the technique of innovation design including the purposes of the respective processes and the effects these processes have.

The entire process is composed of four steps as described in **Figure 1**.

1) Grasping the current situation

By observing how the customer actually uses the device, discover the present issues that cannot be found just by looking at the device used.

2) Understanding the ideal

Identify an ideal way of working based on how people work on site and the minds of working people and clarify what is important for the proposed solution and device to function better for the user and what is expected of them.

3) Creating an overall plan

By grasping the current situation and clarifying the ideal, create an overall solution plan describing what proposal can solve the present issues and realize the ideal.

4) Designing the device

Figure out the design specifications of the device according to the solution plan and design the device itself including its shape and color scheme.

In making proposals, the first step is always to grasp the current situation. In grasping the current situation, the designer first makes an on-site observation based on the IW2 concept (explained in section 2), which is Fujitsu Design's original perspective. In this way, the current situation in contexts that cannot be found out by looking at the device alone, such as the purpose of use of the device, the situation, operation and body position in which the device is used and the installation and use environment, were understood and issues according to the way of working of the customer

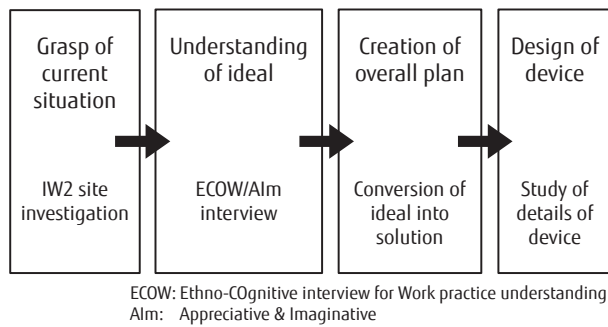


Figure 1
Overall process of innovation design.

were discovered.

2. Grasp of current situation by IW2 approach

As shown in **Figure 2**, the IW2 concept refers to the idea that a solution to the way of working consists of three factors: IT (IT device), WS (work style) and WP (workplace). The current situation was grasped from these three perspectives by actually visiting the customer's offices and observing how things took place there.

In the present case, we obtained a customer's cooperation and visited three offices in an urban, suburban and outlying area.

The following specifically describes how to grasp the current situation based on IW2.

1) IT

For the device, observe the situation from the viewpoints listed below and identify issues to consider.

- What kind of device is used?
- What is the body position in which the device is used?
- What operation is conducted with the device?
- What kind of information is handled, and in what way?
- With whom does communication take place?
- What kind of peripheral equipment is used?
- Is the aim that is to be primarily achieved really realized?

The result of observation showed that the customer used a notebook PC with a touchscreen and was holding the screen while inputting with a special pen on the screen because the screen section wobbled. When having an interview with customers and asking

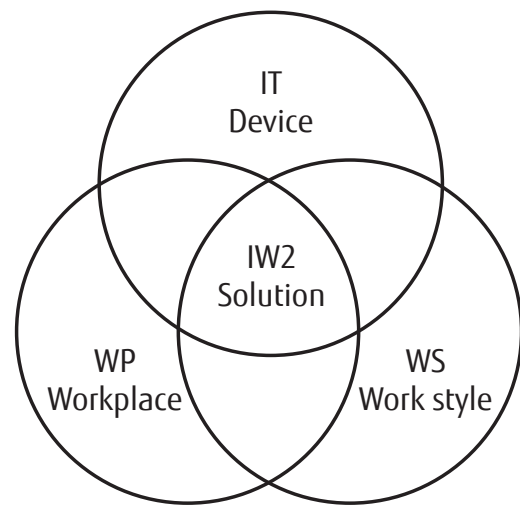


Figure 2
IW2.

them about operations that they are not really aware of, like this, they may say they are not inconvenient and so they tend to be overlooked. That is why it is necessary to observe the actual site. Regarding with whom communication takes place, we observed a salesperson take the device to the desk of his superior and operate it while standing there and showing his superior the screen. Ways of use like this can only be found out by visiting the site where the device is actually used.

2) WS

Concerning the salesperson's work style, focus on how a day's work proceeds, rather than scenes of use of the device, and observe with the following points in mind.

- From what time to what time does the salesperson stay in the office?
- From what time to what time does the salesperson go out?
- How many clients are there to meet?
- What kind of place is used for meeting clients?

Preferably, a flow on one day should be observed, though this is often impossible. In that case, it is sufficient to observe only during the period of time when the device is most often used and ask the user about other periods in an interview; this will be described later. As a result of the observation, we found that a characteristic work style was for the salesperson to go out after making preparations for sales calls and having a consultation with the superior in the morning

and conducting sales activities according to the day's visit plan. To meet clients, a salesperson usually talked while standing at the entrance of a client's house and, when meeting in the workplace of a client, a reception space or a nearby restaurant or coffee shop was used. The means of transportation varied depending on the salesperson and area: public transportation systems were often used in the urban area, while a bicycle or car was used in an outlying area. The sales activities were completed around 4 p.m. and the salesperson went back to the office to report on the business, make additional inputs to the device and prepare insurance plans to use for visits on the next day. Seasoned salespersons do all the work by themselves and conduct operations based on interpersonal trust built up based on long-term relationships with clients. Salespersons who have only been on the job for a short time team up and work closely with their immediate superiors to acquire clients and learn the operations.

In addition, since they handle personal information, they have recently stopped taking the devices outside except for special occasions but printouts are presented to clients in consideration of the need to prevent information leakage, and this is another characteristic.

3) WP

The current situation of the workplace should be observed. This involves making actual visits to the customer's workplaces, gaining information such as the arrangement of desks, locations of lockers and multifunction printers and widths of passageways, and taking measurements as required. At the same time, the lines of flow of people in the office should be checked by gaining an understanding of the means of communication and movements of people in the space from perspectives including:

- Who is communicating with whom, in what organizational position, and for what purpose?
- What are the positional relationships of desks of salespersons and superiors in the office?

The results of these observations provide materials for studying whether the layout has any problem based on the current situation of the space and communication in the office and whether operational efficiency can be improved and communication facilitated by proposing efficient layouts. To make a proposal that requires the introduction of new equipment, the designer

must make an observation to gain useful information and discuss where in the office such equipment should be placed. For the present case, the layout is not standardized when the office is rented, for example, and we checked points such as:

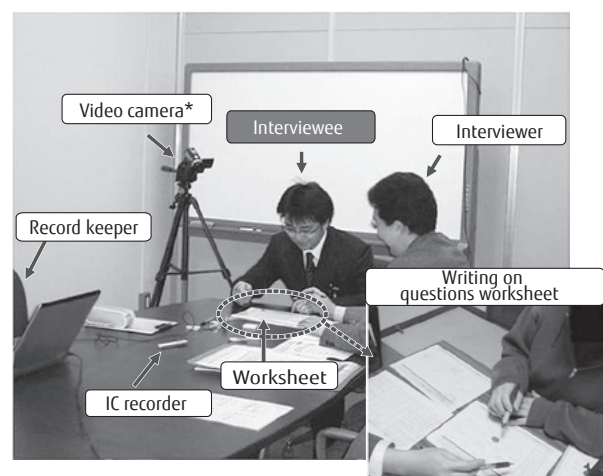
- What types of equipment, lockers and book storage are necessary for the business operations?
- Is the desk layout appropriate for communication?
- Are the widths of passageways appropriate for the size of the office staff?

3. Understanding of ideal by listening to opinions of site

This section describes the process of determining potential needs and wants from the awareness and current situation of people working on site and understanding the ideal based on them.

Based on grasping the current situation from the three perspectives of IW2, as mentioned earlier, we conducted interviews with the focus on the ideal way of working, or what the salespersons who actually use the device think is a good way of working. Then, we clarified what was expected of a new device and solution and visualized as a scene how its adoption would change the operations to figure out an ideal overall plan. For the interviews, Fujitsu Laboratories' proprietary interview technique called ECOW and Alm was used to derive an effective ideal (**Figure 3**).

This interview technique is composed of two



* Video camera installation is not necessarily required.

Figure 3
Example of scene of ECOW/Alm interview.

parts: ECOW, which clarifies the actual situation of operations and problem awareness on site with the focus on the interviewee's awareness of operations, and Alm, which formulates a future medium- to long-term vision with the focus on the interviewee's feelings toward operations.

In the interview, the interviewee is prompted to remember scenes and experiences in which he or she found work rewarding and felt a sense of mission and feelings generated at those times based on the way of working. From these, essential demands and ideals are derived that may trigger feelings not recognized by the interviewee himself or herself. The interviewee feels very satisfied after the interview because a conclusion is drawn on the spot based on his or her own words, which means there is less mental burden for the interviewee. These interviews, each of which took about 50 minutes, were conducted with a few salespersons and their direct superiors in three offices with different customer bases. We extracted essential demands and ideal ways of working from the interviewees' awareness of their work and frank opinions of the sites. In this way, we clarified fundamental factors for visualizing the overall plan to realize the ideals and scenes of use.

What was characteristic about this case is that we commonly observed the high sense of mission of salespersons committed to doing what should be done quickly and accurately when clients have an emergency. We found that their strong professionalism, with the concept of making continuous efforts to build relationships of trust and being sensitive to changes in clients, is most important for proposing insurance plans that are in line with clients' wishes.

In addition, those salespersons do not think that increasing the number of meetings with clients for no special reason is a good idea. The findings show that they consider it ideal to meet with clients a fewer number of times but to have more fulfilling meetings to avoid imposing burdens on clients. They want to meet at timings appropriate for reviewing insurance policies along with changes in the client's life stage such as childbirth, marriage and children's entrance into and graduation from schools. And we found that their superiors' ideal was to be capable of giving appropriate instructions to newcomers and seasoned salespersons alike by gaining an overall understanding of areas such as what proposals salespersons should give to their

clients, when, whether they overlook anything or not, and whether suitable proposals were given.

However, these ideals also pose issues under the present conditions. For salespersons, who communicate with clients by paper, the number of proposals given has increased because they give proposals to clients, come back to the office for review and then give proposals again. They thought it would be convenient to ensure flexibility by allowing clients to customize a plan in one meeting, but the demand was not sufficiently met in a way that could achieve this. They had hoped that allowing clients themselves to change the details of insurance policies and be able to recalculate proposed plans and payments for them on the spot would reduce the amount of clients' time taken up.

On the other hand, their superiors felt that ensuring appropriate instructions were given was an issue because, while they had a grasp of how less experienced salespersons were doing thanks to having daily reports, contact and consultation, seasoned salespersons were self-governing.

We found that this strong sense of mission and consideration to clients shared by the front-line salespersons and their superiors are relevant to *wants*, and what they think are issues in operations are relevant to *potential needs*.

4. Overall solution plan and conceptual model

This section describes the creation of an overall solution plan and visualization of scenes of use of the device based on grasping the current situation by IW2 and understanding the ideal by ECOW/Alm mentioned earlier.

What should be done first is to visualize a concept of what proposals make it easier to achieve the ideal of the actual site. Here, they are constructed based on working people's awareness, what they think makes work rewarding and their idea of a desired organization. In the development technique of innovation design, the focus should be given first to what needs to be realized to make the customer's business better, rather than technical issues, thereby clearly defining the goal and ensuring consistency in the subsequent proposal and development. Accordingly, it is very important to consider the properties of the ideal of the site in setting the goal.

The interviews in the present case revealed that two requirements should be met. The first is that the overall solution proposed must help salespersons to nurture a sense of trust that is generated by steadily building communication with customers. To that end, each opportunity to meet with a customer should be even more meaningful than now. The second is that, from the perspective of the superiors, the solution must help them construct a strategic business infrastructure that makes use of the abilities of the individual salespersons and organizational strength by on-demand information management.

Figure 4 shows the concept of an overall plan, with the left side showing an ideal style generated from the relationship between a superior and a salesperson. The ideal is that the superior supports a salesperson's work based on his or her day-to-day information gathering efforts; then holistic, appropriate instructions and advice are given to the salesperson.

The right side in **Figure 4** shows a relationship between a customer and a salesperson; the salesperson is steadily building communication on a daily basis so as to build a relationship of trust and propose an insurance plan at an appropriate timing. At that time, the salesperson, as an insurance professional, should help the customers embody and realize their idea, thereby increasing the sense of security with a proposal that well reflects the customers' vision and increasing trust

for the salesperson offering support, which is the ideal.

Scenes of use, or how this conceptual model is applied in the actual site, are illustrated in **Figure 5**. More practical scenes can be studied in detail by conducting specific visualization. Here, IW2-based analysis of the current situation and evidence obtained in an interview are incorporated to show why the device used in these scenes is sized and shaped in this way.

Figure 5 indicates scenes of use around 10 a.m. in the office. Who made what type of communication and what body position was adopted are based on on-site observation by IW2. The interview analysis results are reflected in what needs and wants are satisfied by the new device. This figure embodies scenes in which preparations for sales activities can be made without worrying about adapter cords by charging the battery in the salesperson's spare time at night and natural body positions can be adopted during communication between superiors and salespersons by inverting the device screen. In **Figure 6**, scenes of meetings are embodied from an interview-based ideal in which a natural body position can be maintained for communication when facing the client by inverting the device screen. We made a proposal to realize the salespersons' wish to face clients with sincerity as insurance professionals by changing the shape of the device.

The final thing required to realize these scenes of use is technical consideration. We have examined

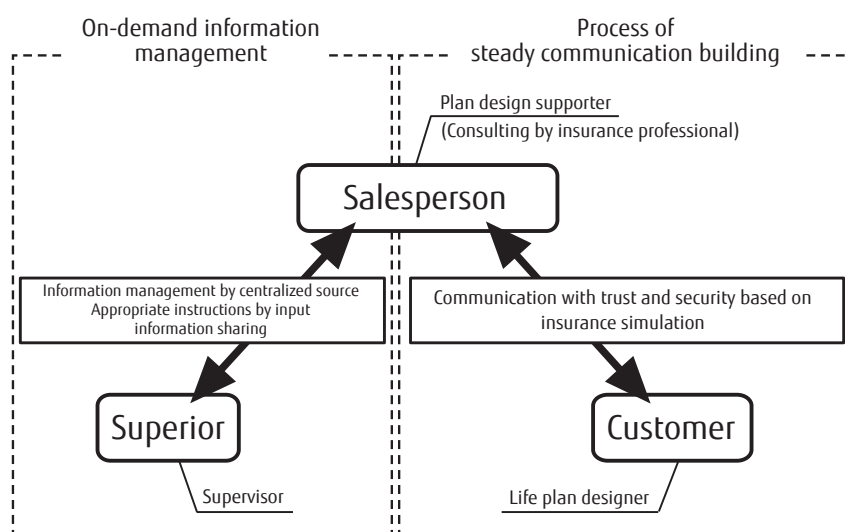


Figure 4
Conceptual model of overall solution.

Use on one day

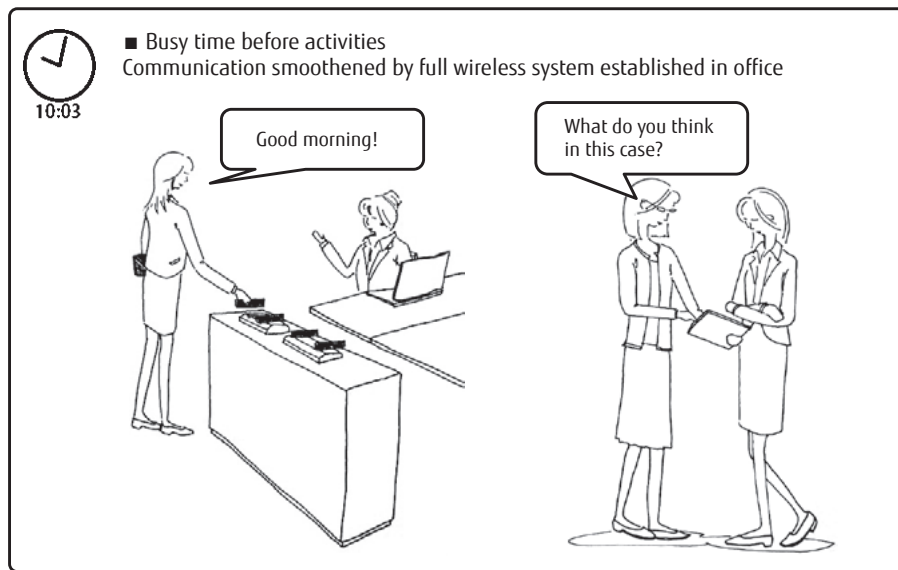


Figure 5
Example 1 of visualized scene of use.

Use on one day

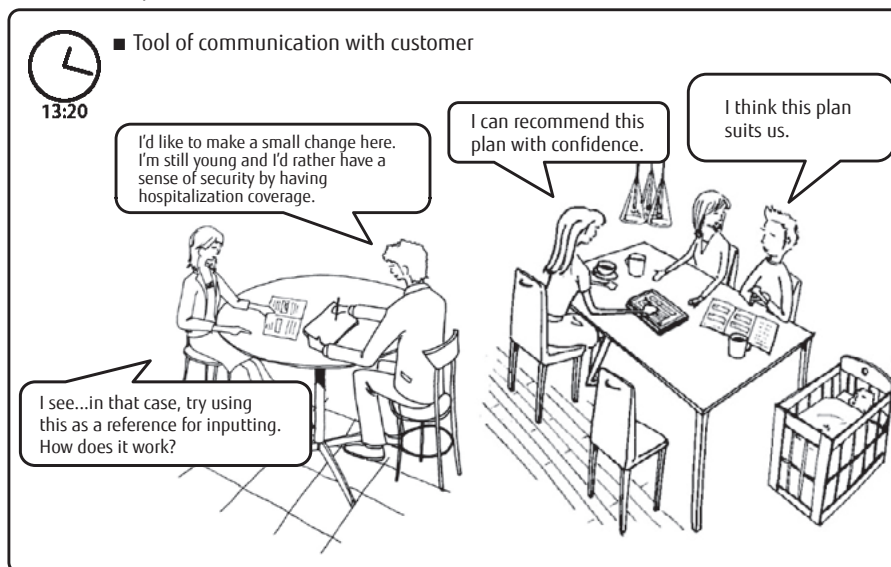


Figure 6
Example 2 of visualized scene of use.

what device combinations and technologies are necessary to realize the ideal.

5. Study of optimum device specifications

This section describes the specific specification

study after the overall solution plan and scenes of use are clarified.

In the specification study, we designed the device by studying the locations of connectors, shape in consideration of ease of holding, and device color scheme based on the shape so that we could realize the scenes

of use and how the device is used as mentioned above.

Figure 7 shows the design and concept of the device.

The device with an invertible screen as shown in Figure 7 allows the user to carry out regular desk work by inputting information with a keyboard in the office and use the device with the keyboard hidden, which is perfect for face-to-face communication in any scene.

The design incorporates three concepts:

- Friendly, rounded shape suited to insurance professionals
- Considerateness of the maker manifested in the connector layout adapted to actual operations and easy-to-hold shape
- Solid structure and security to ensure reliability and adoption of a color scheme that matches the suit or jacket worn by the salesperson so that the client is given an impression of trustworthiness and calm friendliness suitable for an insurance professional

Then, this device was verified in terms of whether it could be used in the above-mentioned scenes of

use without awkwardness by building a mock-up and making a simple movie in which it is used. Part of the movie is shown in **Figure 8**.

Figure 8 (a) shows verification in scenes of use in the office and with peripheral equipment. Figure 8 (b) verified that the device could be used without awkwardness in the body positions adopted when meeting with clients.

The movie makes it easier to quickly understand the effects expected by adopting the overall solution plan and device proposed. These can be used to make a story by understanding the current situation in detail and the ideal. In addition, the movie was helpful in making a proposal to the customer because it allowed us to confirm that the important points in the proposal were shared, and to confirm policies about what should be done to realize the ideal.

About two years have passed since the customer introduced this device. At present, it is used as a mobile device for insurance consultations and carrying out procedures in front of clients and it can be carried with the salespersons during sales activities.

6. Conclusion

The innovation design technique described in this paper is not quite generating something from nothing. It is intended to make new proposals that customers find easy to use in real life and realize the necessity of them. It does this by first grasping the current situation through on-site observations and then finding out working people's awareness and ideal through interviews.

Customer satisfaction cannot be achieved by satisfying needs alone. Customer demands can only be properly met by satisfying wants beyond needs. The innovation design technique can be said to be a technique for that purpose. We have practiced this technique in the present case to discover and embody wants.

■ Ideas incorporated in design (three design concepts)

- | | | |
|--------------------|-------|---|
| 1) Friendliness | | Airy and softly rounded overall shape |
| 2) Considerateness | | Careful consideration for ease of use |
| 3) Trust | | Solid structure, security operation, color scheme |

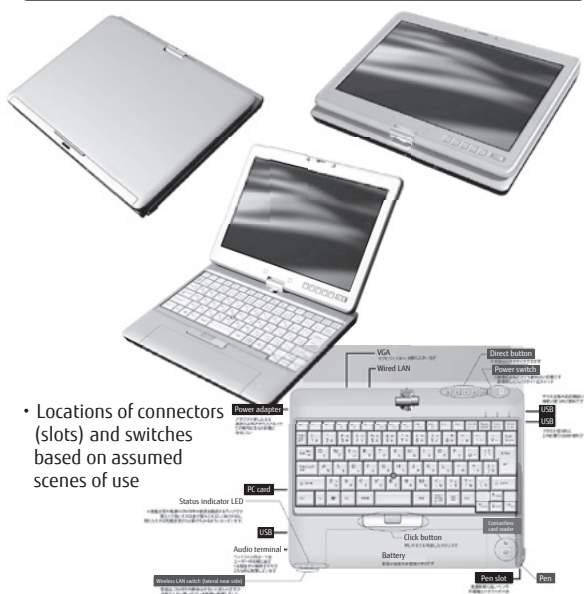


Figure 7
Study of device design.

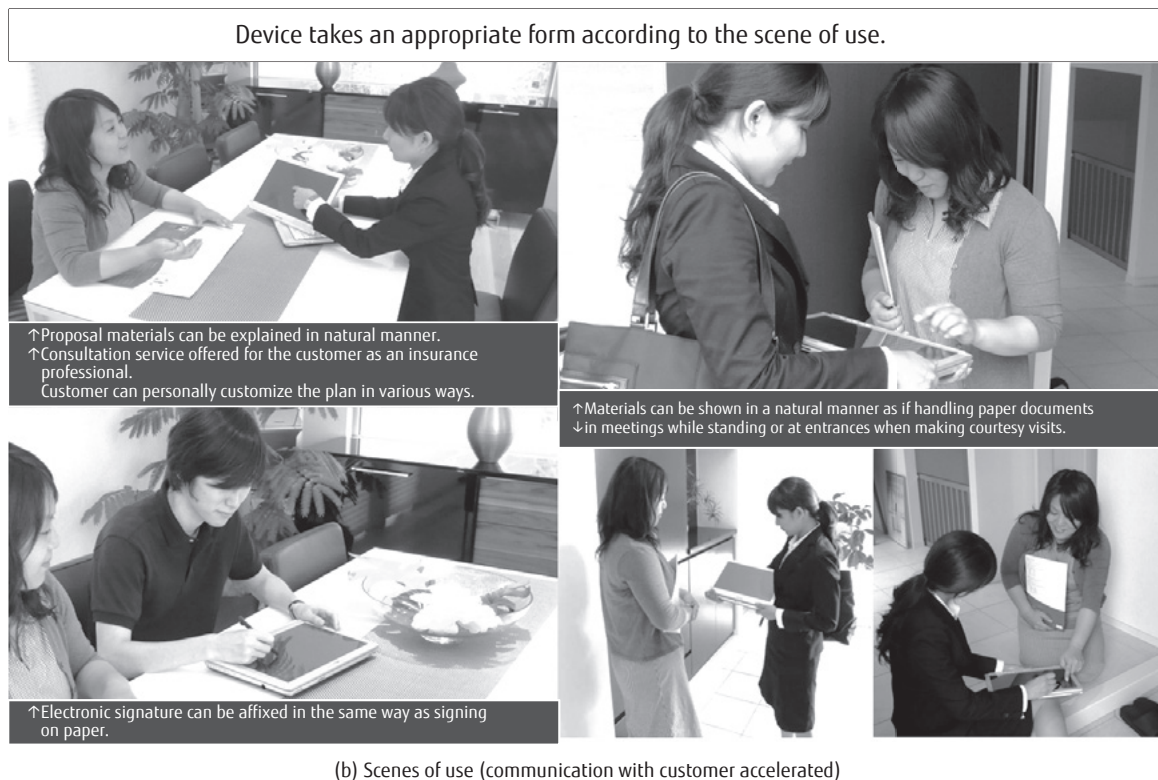


Figure 8
Study of design by scenes of use.



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Mr. Fujiwara is currently engaged in medium- to long-term advanced design planning.