ISASE 2020

Extraction of Problem Solving Patterns on Business Meeting

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Abstract: The authors observed and analyzed the problem solving processes of a business meeting. Specifically, we analyzed conversations at a meeting between the headquarters of an apparel company and employees at the site. In this paper, the types of problem solving are classified into small problem solving and large problem solving. Small problem solving involves sharing, communicating and confirming information. Small problem solving are also classified into three patterns. Pattern 1 is the case where the problem is solved immediately in the dialogue. Pattern 2 has the prospect of solution, but the solution is carried over to the next time. Pattern 3 is a case where the subject is moved to another agenda without being resolved. Large problem solving requires discussion. As a result of analysis and discussion, it was suggested that headquarters employees' awareness and changes in viewpoints by grasping the situation at the site had a great effect on problem solving. In the meetings, not only were discussions on the agenda set in advance, but also new problems were discovered from the conversation. This showed the importance of the face-to-face problem solving process.
Keywords: *Meeting, Information Sharing, Awareness*

1. INTRODUCTION

In an actual business, various problems occur regardless of the size of the matter. In-house meetings are indispensable to solve the problem. In order to hold a meeting, not only is it necessary for each individual to have the power of imagination, but communication between multiple people is indispensable. When a meeting is held by multiple people, there may naturally be situations where people belonging to different organizations and people with different amounts of knowledge have a dialogue. In such cases, it is often difficult to draw conclusions for solving the problem, because each viewpoint and thinking circuit are different. The authors have observed a case in which members with different preferences in daily life form new consensus by communicating, newly recognizing them, changing their perspectives, and agreeing at the level of values, and smoothly forming consensus [1] [2]. Even in business situations, it is thought that the opinions of people in different positions are gathered by the awareness and the change of viewpoints due to the discussion of meetings.

In this study, we analyze the process leading up to problem solving at a business meeting, and consider support materials for problem solving. Furthermore, we describe the significance of the meeting in the business field and the types of problems solved there.

2. PROBLEM SOLVING IN BUSINESS

The authors consider a meeting in the business field to be a place for problem solving. In this paper, we set the following two types of problem solving. The first is small problem solving. Small problem solving involves sharing, communicating and confirming information. For example, when a meeting is held between members belonging to different departments in the company, it is assumed that the progress status of each meeting is reported and information is shared, or things are confirmed. The second is a large problem solving. This refers to problem solving that requires discussion. For example, when starting a new project in the company, assume that the direction of the project has not yet been determined. In this case, it is necessary to discuss from the beginning, and this is a major problem solution. The big difference between large problem solving and small problem solving is whether the conclusion of the problem solution can be drawn immediately or the conclusion can be drawn by discussion. In the case of small problem solving, it is often easy to solve problems through meetings or telephone calls over video such as Skype. However, in the case of large problem solving, it is presumed that more optimal

solutions can be found by meeting. Therefore, this study focuses on solving large problems.

In addition, small problem solving are classified into three patterns. Pattern 1 is the case where the problem is solved immediately in the dialogue. In pattern 2, there is a prospect of a solution, but the solution is carried over to the next time. Pattern 3 is a case where the subject is moved to another agenda without being resolved.

3. CASE STUDY

In this research, we use the audio data of an in-house meeting of IGA Co., Ltd., which handles apparel products. There are a total of four voice data, and each data name is data 1, 2, 3, 4. Data 1 and 2 are from a weekly online sales strategy meeting held by all five people. Data 3 is the data of a meeting with China, a Shanghai meeting held by all four people. Data 4 is data of the meeting for the area workshop where all store managers were exchanged by all 10 people. Figure 1 shows the visualization of three types of small problem solving patterns and all four types of large problem solving patterns. Data 1 and 2 are routine meetings with a focus on reporting and confirmation of small problem solving, Data 3 is a complex meeting with both small and large problem solving, and Data 4 is mostly a large problem solving. This is a non-routine

meeting that requires discussion to solve the problem.

Table 1 shows the number of problem solving patterns for small problem solving for each data. Data 1 and 2 have a large number of solution patterns 1 for small problem solving. Solving pattern 3 is only data 1 and 2 can be seen. On the other hand, although data 3 and 4 have a small number of small problem solving as a whole, data 3 and 4 have large problem solving.

4. OBSERVATION AND CONSIDERATION OF THE PROBLEM SOLVING PROCESS

In data 1 and 2, there were many items to be checked for inventory orders for products and reductions in prices during the week, etc., and in many cases, problem solving pattern 1 was immediately resolved. On the other hand, data 1 and 2 also have unresolved cases. This is a case that can be a large problem solving. What is important in solving a large problem is awareness, change of viewpoint, and the unpredictability remark. As an example, we take up a meeting with the content of "about store complaints", follow the process until the problem is solved, and consider what effect it has on the problem solving. This case is a meeting of four people, A and B belonging to the headquarters, and C and D who is the store manager.

First, Mr. A of the headquarters proposes a problem, "We only want to deal with complaints due to mistakes in the basic operation of cash registers," In response to this fact, the manager C said, "operation at the cash register is very slow," recognizing the problem with the cash register from the point of view of the shop floor. Here, the problem of "claims about cash register mistakes" shifted to the problem of "slow cashier operation." From the conversation, Mr. A, the headquarters, gradually grasps the current situation at the site. In the process leading up to the solution of the "slow cashier operation" problem, the one that seemed to have influenced the solution most likely was Ms. C's remark: "Compared to GU and UNIQLO systems, the time it takes to fold clothes after

Table 1: Visualization of problem solving patterns

	Large problem solving	Small problem solving		
		1	2	3
Data1	0	30	9	3
Data2	0	39	5	3
Data3	1	17	6	0
Data4	3	5	4	0

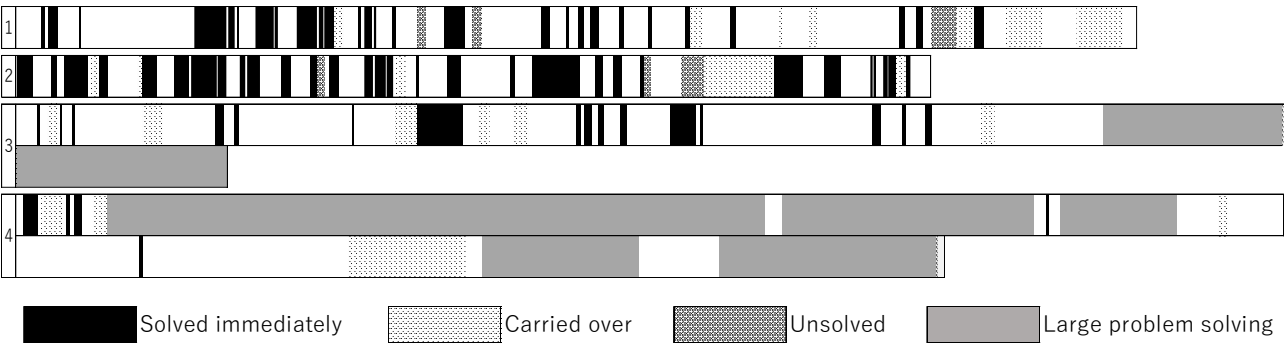|				
▮ Solved immediately	▦ Carried over	▨ Unsolved	▨ Large problem solving

Fig 1: Visualization of problem solving patterns

our transaction has been processed is useless for our customers." From this remark, the scope of conversation was broadened, and they could compare their company with other companies and discover the procedures to be incorporated into their company. Until then, they talked about staff working at cashiers in actual stores, but Mr. C's remark changed the perspective of the talk from inside to outside. It can be said that the presence or absence of a key person who can greatly change the viewpoint of conversation in the middle greatly affects the result of solving the problem. After that, Mr. A said, "The order of bagging first and then processing the money is good," and suggested an improvement to the problem. From here, they talked about how to make improvement plans in the future, and came to the conclusion that at the leaders' meeting, they would like to have a video about the movement decided in this discussion.

The main purpose of this conversation was to solve the problem of "slow cashier operation", but found a new problem of "excess packaging" in the conversation. This was a face-to-face meeting, so it is thought that they were aware and able to discuss deeply. Therefore, they discovered a new problem. Furthermore, store managers talk about the actual excess packaging troubles. In response to this situation, Mr. A concluded that they will unify the packaging response as a whole brand and set standards.

What can be said in common for both cashiers and excess packaging is that they can grasp the situation at the site from the conversation of the store manager and gain awareness to solve problems while talking while assuming. In this case, it can be said that, in solving the problem, whether the actual situation at the site can be grasped has a very large effect on the problem solving.

5. CONCLUSION

In this study, we observed and analyzed the problem solving processes of a business meeting. Specifically, we analyzed conversations at a meeting between the headquarters of an apparel company and employees at the site. As a result, it was suggested that headquarters employees' awareness and changes in viewpoints by grasping the situation at the work site had a great effect on problem solving. In the meetings, not only were discussions on the agenda set in advance, but also new problems were discovered in the conversation. This showed the importance of the face-to-face problem solving process.

In the future, we will analyze more cases, point out the importance of face-to-face meetings, and consider ways to support problem solving in meetings.

REFFERENCES

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Language:英語