



Analysis of Service Staff's Observation on a Customer

A Case Study of Hotel Service in Japan

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Abstract. Personalized services are required for high customer satisfaction and depends on front-line employees. Superior service staff sometimes notice what general staff can't, have a better understanding of how to observe customers and provide excellent service according to the situation. In this study, we investigate how staffs observe customers, and in turn, use this information for human resource development. Through this investigation, we gather data on the staff's gaze point, and then understand their thinking process in response to what they saw. The gaze points are categorized into 8 items. What the staff thought varied even with the same gaze points. From the results of the analysis, we propose a model of the staff's observation levels. Using this model, service staff can be trained to provide better customer service.

Keywords: Customer encounter · Observation · Hotel staff · Visual Thinking Strategies

1 Introduction

Human resources are one of the most important assets of hotel industry [1]. It is said that customers want personalized service [2] and the responsibility for customizing services is often on front-line employees [3]. Hotel staff need an intuitive understanding of a customer and their needs in order to provide suitable services [3]. Compared to general staff, superior service staff are better at observing customer behaviors and providing services that are suitable to the situation. Providing specialized services is desirable to make an impression on a customer's mind. However, sometimes the focusing on the needs of a customer may lead to fatigue and fluster in the staff. This can have a negative effect on their performance and their ability to provide fundamental services. While superior staff are able to maintain composure and adapt to the service requirements of customers and fellow workers, general staff have some difficulty achieving both, although they are capable of providing standard services to customers, especially during crowded conditions.

In this paper, we study how the staff observe customers. Through the analysis of staff's observation, this study aims to obtain knowledge for human resource

development, including staff training. For this purpose, we propose developing a model of staff's observation levels that will enable service staff and their managers to have a better understanding of how staff members should be trained.

2 Service Providers' Behavior and Characteristics

2.1 Human Resources for Hotel Staff

To retain superior staff who can provide excellent service, the initial recruitment and selection of staff is also an important issue. Ineson et al. used biodata in the selection process for hotel employees [4], and the idea of "ideal employees" and "non-ideal employees" was proposed after analyzing the biodata. This strategy for selecting hotel staff for employment was also studied by [5]. The selection criteria of recruitment were observed in line with hotel classification, which was according to aspects such as the scale of the company. Studies showed that there were differences in the strategies adopted by smaller hotels in comparison to those of the larger hotels, and it is suggested that there are basically two alternative strategies i.e. a successful holistic strategy and a more conventional bureaucratic strategy. These strategies are discussed from the viewpoint of human resource management and in a social context.

In contrast, from a viewpoint of innovation management in the hospitality industry, staff training is described as a key factor that should be given a high priority [6]. Kennedy et al. studied the training programs of five-star hotels [7], and the differences in the perceptions of the quality of customer service received by customers was measured and linked to the training programs of the staff.

2.2 Behavior Measurement and Investigation of Services, for Training Purposes

The work process performed by cabin crews was observed and analyzed by Fukushima et al. [8]. The crews' activities were converted into data and linked to information shared by attendants at briefings. The crews' cognitive processes were modelled from the data and the differences between inexperienced attendants and experienced staff was used for staff training. Luiselli et al. proposed a training program based on competencies for direct-care service providers, and their training program consisted of three items, namely measurement, behavior support, and skills acquisition [9].

The studies show that in terms of practical work improvement and the development of training methods, behavior is measured and shared with trainees as knowledge.

2.3 Visual Thinking Strategies (VTS) and Observations of Customer Service

VTS is a technique originally developed for art appreciation [10]. Through observation and discussion about a painting, VTS improves one's ability to observe an object, express one's impressions of it linguistically, and collaborate with others. VTS has been used in school education [11], and training nursing students in the service industry [12, 13].

The investigation of the staff’s observations was based on a VTS format. The aim of this paper is to develop an observational model that can be used to divide staff members into several categories, which would help the staff know what they should train for. The staff have to observe the customers in order to provide them a customized service. To do this, they need to be able to interpret the actions taking place during a service encounter. VTS can be used to train people in specific aspects of observation. Therefore, VTS is recommended for the investigation of staff’s observations.

2.4 Target of This Study

In our previous study, the interaction between service staff and customers was observed during the check-in process [14]. The study focused on hotel check-in operations as this is the first point of contact between the staff and the customers, and this first interaction can determine a customer’s overall satisfaction with a hotel. Based on the results of the experiment, it was identified that experienced staff generally review a customer’s information prior to the customer’s arrival and they gather further information on the status of the customer during their interaction with the customer during check-in. The information the staff obtain allows them to tailor their service according to the customer’s need. Based on the above study, we categorized staff features into 3 types; “observation (input)”, “processing” and “action (output)” as Fig. 1 [14].

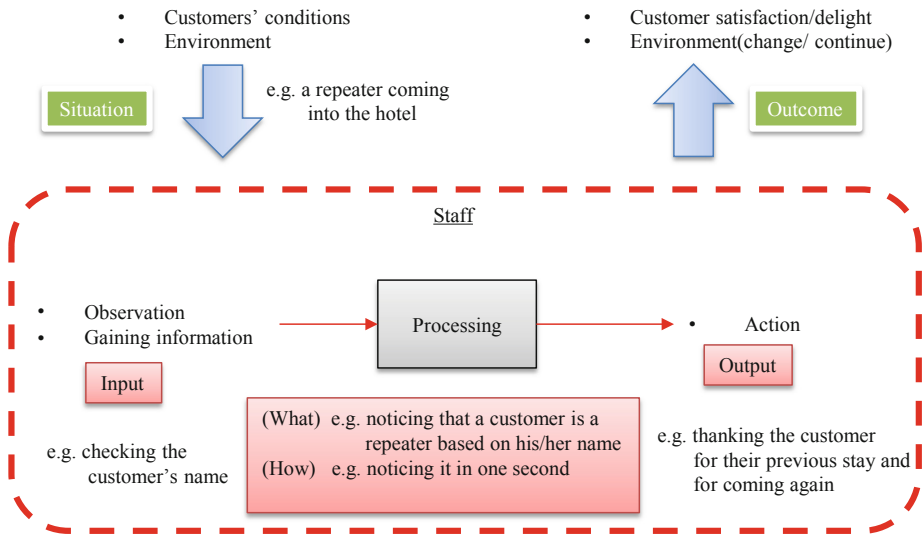


Fig. 1. Typification of staff features based on the flow of staff behavior [14].

The knowledge obtained from the results of the analysis was assumed to arise from the acquisition of customer information before and during customer service, and this information is classified as the “input.” Therefore, in this paper, “input” has been set as the target feature.

From a research point of view, it is important to identify what service providers look out for when they collect information on customers and what are they thinking or feeling as they collect this information. Knowledge of how experienced staff make observations can be used for staff education.

3 Overview of the Investigation

3.1 Case Study: Super Hotel Co., Ltd.

We chose Super Hotel Co., Ltd., a hotel company headquartered in Osaka, Japan for our case study. It operates 136 hotels in Japan and 3 hotels in other countries. These hotels specialize in providing accommodations. The check-in process is an important part of customer service at these hotels. Because customer encounters at Super Hotel are limited to check-in services, a specific and definite situation can be set up for the research.

3.2 Staff Targeted for the Survey

In selecting the staff to be surveyed, we first had to consider who are the best staff. Standard staff also had to be selected in order to retain the possibility of a comparison of the results of analysis between staff with different levels of skill. The distinction between superior and standard staff was based on the results of an in-house contest and evaluation by the manager of Super Hotel. Finally, 3 superior staff members and 4 standard staff were selected. The investigation into staff observation took place between 11 June and 27 June 2018.

3.3 Preparations of the Investigation

The purpose of the investigation was to collate the views and perceptions of service staff with regards to the check-in process. Two main questions were the subject of the investigation. One was "What do staff see (during a customer service event)?" The other is "What do staff think [and feel] (from what they see during such an event)?" Experimental collaborators participated in the investigation and were asked to watch videos as part of step (A) of the investigation "What do staff see?" and then to write what they thought, which was step (B) of the investigation.

In step (A), experimental collaborators watched a video depicting a scene where a customer enters the hotel. High-tech equipment was used to track their gaze, and the staff's observation of the video was investigated and analyzed, as if it was an observation of a real customer.

In step (B), experimental collaborators wrote down on a recording sheet what they thought and felt from what they saw in the video. The instructions, referencing VTS techniques, were: "When you are watching the video, feel free to describe and tell us (i) how you thought or felt, (ii) from what point did you think or feel this way?" How service staff think given what they see, is basically a process that takes place in the mind of the staff. This thinking is classified as "processing," as shown in Fig. 1.

In order to organize the knowledge derived from the investigation and apply it to human resource development, it is necessary to structure the results of the investigation into the concepts of “input,” “processing,” and “output,” so that it is easier to discuss the behavior of the staff based on the information gained from the observations.

The investigation was conducted in Japanese and the settings, explanation, responses and results were translated into English by the authors.

4 Investigation into Observation

4.1 Prior Explanation of the Investigation to Participants

First, the purpose of the experiment, the general functions of the devices, and the type of data that would be acquired were explained to the participants.

Next, the participants were shown a video recording of a hotel. The participants were employed in a hotel that is different from one shown in the video. By watching the video, staff were able to familiarize themselves with how customers come to the front desk and where they stand (Fig. 2).



Fig. 2. A scene of introduction of the hotel, used for preparation of the videos.

Staff were then shown an image that explained how to use the recording sheet that they were being given. The images were not related to the hotel industry but only provided instructions on using the recording sheet. The participants were advised to provide their interpretations of the video without worrying about them being right or wrong.

4.2 Staff’s Observations of the Videos

For step (A), we prepared 20 videos depicting a scene of a customer entering the hotel. Each video was about 15 s long and showed a person, acting as a customer, entering

the hotel and approaching the front desk. Customers of different age groups, gender, and fashion were portrayed in the videos, to avoid bias for or against specific customer attributes. Some common situations, such as a customer holding a smartphone, that can be seen in a service setting were set up. The people acting as customers were Japanese employees from the quality management department of Super Hotel. The video had no sound as it was intended for acquiring information visually. Figure 3 is an example of one such scene in the video. The video was displayed on a monitor connected to a laptop. An eye tracking device, Tobii Pro X2-60, that can observe and track the movement of a person's gaze point, essentially "knowing" what a person is looking at, was positioned on the lower side of the monitor (Fig. 4). The layout for the observation investigation is shown in Fig. 5. With the eye tracking device, a staff's point of sight can be observed without any stress and impact on the participants.



Fig. 3. A scene of a customer entering the hotel.

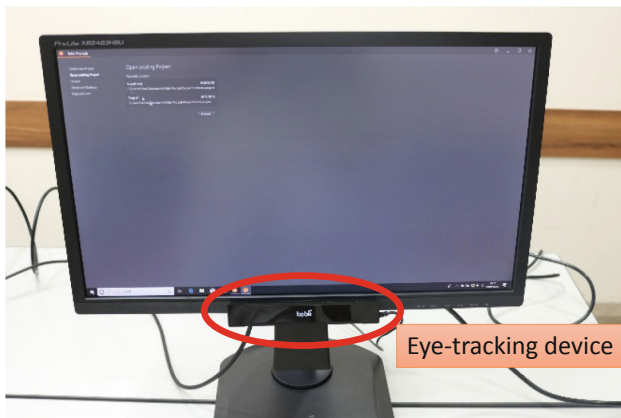


Fig. 4. The position of the eye tracking device.

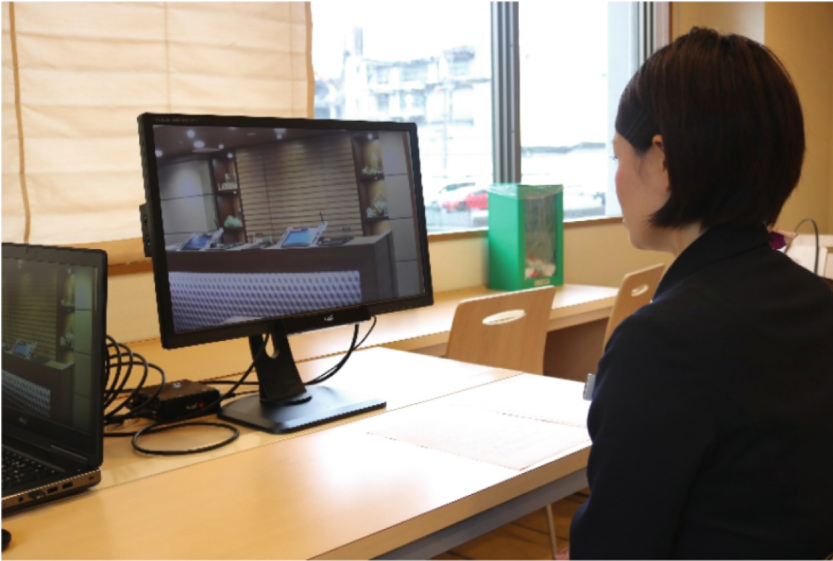


Fig. 5. The layout used for the observation investigation.

4.3 Recording What Staff Thought and Felt

For step (B), as per the questions described earlier in Sect. 3, we asked the staff to write as much information as they could while they observed the video. There were no restrictions on time or the content they were to describe. They were instructed to describe the things that they noticed in the video, such as “a man wears a black suit,” as well as anything else they might be feeling about them, such as “he travels for business.” If the staff noticed multiple thing regarding a person based on only one specific observation (or gaze point), then several sentences about what they thought or felt were allowed. At this point, we did not investigate how confident the staff were in their descriptions; however, we did enquire the staff during additional interviews.

4.4 Additional Interviews About Staff’s Observations During Usual Customer Service

To interpret the meanings of “what staff saw” and “what staff thought and felt” in the context of usual customer services, additional interviews to participants were carried out. Before the additional interviews, the results of the analysis on the observation investigation, as described in Sect. 5 of this paper, were summarized. Based on the result that came out in the data analysis, staff were asked what they looked at and what they thought during customer service.

4.5 Analyzing the Point of Sight Data

An analysis software designed for the eye-tracking device was used for the observation investigation. The eye tracking device and its analysis software enabled us to record the exact point on the monitor where a service provider was watching the movie (Fig. 6). The point that a staff member gazes at is shown as a circle. When he/she changes the gaze point, the shift is expressed with a line between two circles. What the staff sees can be known with these symbols. With the analysis software, an AOI (Area of Interest) can be defined in the movie (Fig. 7). Using these AOIs with the point-of-sight data, along with other data such as the length of time spent on an AOI, a staff's observation is digitalized as data related to an AOI.



Fig. 6. A visualized point of sight and flow of sight.



Fig. 7. Areas of Interest defined on some objects.

5 Results of Analysis

5.1 What Do Staff See?

From the descriptions in the recording sheets of step (B), items of observation were categorized based on the types of words or descriptions which appeared frequently. The described content was classified as follows:

- What (direction) a customer sees,
- How a customer walks,
- A customer's facial expressions,
- A customer's gestures,
- A customer's clothing (including a watch and accessories),
- A customer's belongings (luggage),
- Physical characteristics (including body shape, hair style and makeup),
- Other.

The time spent by a participant watching a particular point was not considered to be of significance. The data gained with the eye tracking system showed that the point where staff paid the most amount of attention timewise was the customer's face. The least amount of time spent looking at a customer's face was 30% of the total time,

whereas, the longest amount of time was 70%. However, the percentage of descriptive observational sentences in the recording sheets that related to the face was less than 20% in total, including "What (direction) a customer sees" and "a customer's facial expression."

What was seen exactly, in what order, was different for each staff member. Some staff members displayed their own unique observation patterns. For example, one staff member looked at a customer from head to toe, then the luggage, and then the clothes in a specific order.

5.2 What Do Staff Think?

In this section, the contents of the recording sheets, what the staff saw and what they thought, are organized. A detailed explanation of each of the above-mentioned items and the perceptions of the staff are given below:

What (Direction) a Customer Sees. Regarding "What a customer sees," there were comments such as "a customer's line of sight is sweeping from side to side" and "a customer looks at the paper (/map) in their hand." When staff saw a customer looking around confused or nervous, they wrote that they assumed that the customer was new to the hotel.

How a Customer Walks. This category was in relation to the speed of a customer's gait and was classified as either "early-" or "late-walking". In "early-walking" cases, it was assumed that the customer was either in a hurry or was impatient. In this instance, the staff members were generally aware of the customer's need for a timely check-in and response. In "late-walking" cases, the staff members often considered advising the customer to sit down and have a rest, assuming that the customer was tired.

A Customer's Facial Expression. The facial expressions of customers were classified into three categories i.e. a stern expression, a pleasant expression, and no expression. In the case of a stern expression, it was assumed that the customer might have some problem. For this reason, there was an opinion that, after completing procedures such as a quick check-in, the staff considered it a sign that the customer required additional support. For the customer with pleasant facial expressions however, it was assumed that the purpose of the trip was enjoyable. Therefore, in their attempt to make the customer's stay at the hotel even better, the staff intended to guess the purpose of the customer's visit and talk about it with them. The expressionless customer was assumed to not be in a normal state, and in some cases, staff considered asking if the customer was well. There has been a study done to evaluate service from the viewpoint of the customer based on criteria related to facial expressions [15].

A Customer's Gesture. The responses on gestures of the customer at the front-desk were variable and highly unique. For example, there were items such as "holding back," "wiping sweat," and "taking out a wallet immediately." The staff assumed that a customer held back and wiped his sweat if he was not feeling good. The staff commented that they would not respond to such a situation. It was assumed that if a customer took out their wallet immediately, they were in a hurry or accustomed to the Super Hotel check-in process. Nonverbal behavior (NVB) is seen as important as

communicative behavior for interactions between a staff and a customer [16]. The gesture is very meaningful as *“each gesture is like a single word and one word may have several different meanings. ... NVB can also help establish a relationship between staff and customer and help establish staff credibility”* [16].

A Customer’s Clothes (Including a Watch and Accessories). There are two types of interests that staff had on a customer’s clothes. One type was to notice the characteristics of a customer’s clothes and accessories, and to talk about it during the customer service. The other was speculating from their clothes that a customer was still at work during their check-in. When a customer checks in at the hotel during work, it is necessary for a provider to make changes to service processes such as storing a customer’s luggage or proceeding with the check-in procedure quickly.

A Customer’s Belongings (Luggage). The size of the luggage was also mentioned as a feature and was used to infer the ease of use of the guest room and length of stay. From the viewpoint of customer’s expectations, helping a customer with his or her luggage is one important factor that makes them feel most welcome [17].

Physical Characteristics (Including Body Shape, Hair Style and Makeup). The size or height of a customer was used to determine the size of the sleepwear that should be provided regardless of the body size, and many staff members checked these physical attributes. The Height of a customer would also be used to determine if they could access high shelves in a room and if not additional work was required after check-in.

About the relationship between what staff saw and what they thought from their observations, some combinations were recognized as being common patterns of behavior, displayed by many staff members. Some examples are as follows:

- If staff see a customer’s line of sight swaying from side to side, then staff infer that he/she is a new customer
- If staff see a customer walk straight up to the front desk, then staff feel that he/she might be a regular
- If staff see a customer walking fast, then staff guess that the customer is in a hurry and are mindful of proceeding with the service process quickly

What was common to the three superior staff members was that multiple possibilities were often assumed based on one point of observation. They interpreted one fact in several ways, and prepared for many different changes that might be required in their response. On the other hand, they didn’t think too much about things and instead focused on one or two specific observations. The number of sentences or words written in their recording papers was less than the amount written by standard staff. Most interestingly, the staff member whose job experience was the shortest in duration out of all research collaborators, wrote the largest number of sentences. What this staff member described about what she saw were comments mainly centered on the customers’ appearances, and what she thought and felt from these observations were mostly anticipations about the customers’ personalities. Even though a customer’s personality affects the impact of customer service and is important feature for the service, it is something which the staff can’t change or influence directly. In cases

where staff are anticipating a customer's personality, they should think about adapting their service according to this information.

6 Discussions

6.1 A Model of Service Staff's Observation Level

From the results of the analysis, we propose a model of ideal service regarding staff's levels of observation (Fig. 8). The descriptions on the recording sheets were about certain features of a customer and about staff forming assumptions about a customer's condition based on these features and about deciding what to do, or what not to do, depending on the customer's condition. What staff thought seemed to get even more complex the deeper their consideration on a customer's features or his/her condition. The ideal consideration process for staff was therefore divided into 5 steps so that information could be processed in stages.

In the following, while explaining how the model is structured, the characteristics of each stage and the issues that can arise at each stage, are organized as a flowchart. An example of training and/or help to the provision of service at each stage is also described.

The model starts from the moment when the provider notices a customer. When staff see a customer, they sometimes find something that should be paid attention to. In the first step, the fact that they find something or not is the branch condition. If staff members find nothing in spite of a customer being in trouble, they need to pay more attention to the customers.

In the second step, the branch condition is set to whether staff can interpret what they find and relate it back to customer service. If they cannot connect the finding with customer service, then they cannot provide any service for the finding and can only pay attention to it. For the staff members at this level, they should know more about the relationship between a customer's condition and their service. A kind of case study on their business might be the help needed for it.

In the third branch condition, whether or not the finding can be interpreted in multiple ways is the key question. In this case, if a customer has trouble and staff can help him/her easily, then their help is enough as a provision of service. However, things are not always simple and need to be considered from multiple angles. For this level, segmentation of customers is one of the solutions for staff to change their view. They should train to know a customer and empathize with them, and try to imagine how he/she feels in a specific situation.

If the finding can be interpreted in several ways, the process goes to the fourth step. The branch condition at this level is whether staff can clearly find the highest priority interpretation or not. In this case, if the priority is clear, then the situation is similar to the previous level. Staff should provide customer service with more room than usual so as to find out more about the customer and adapt their interpretation. From this level, staff need to not only think and feel more about a customer's condition, but also to judge which choice is the most prudent amongst many possible choices.

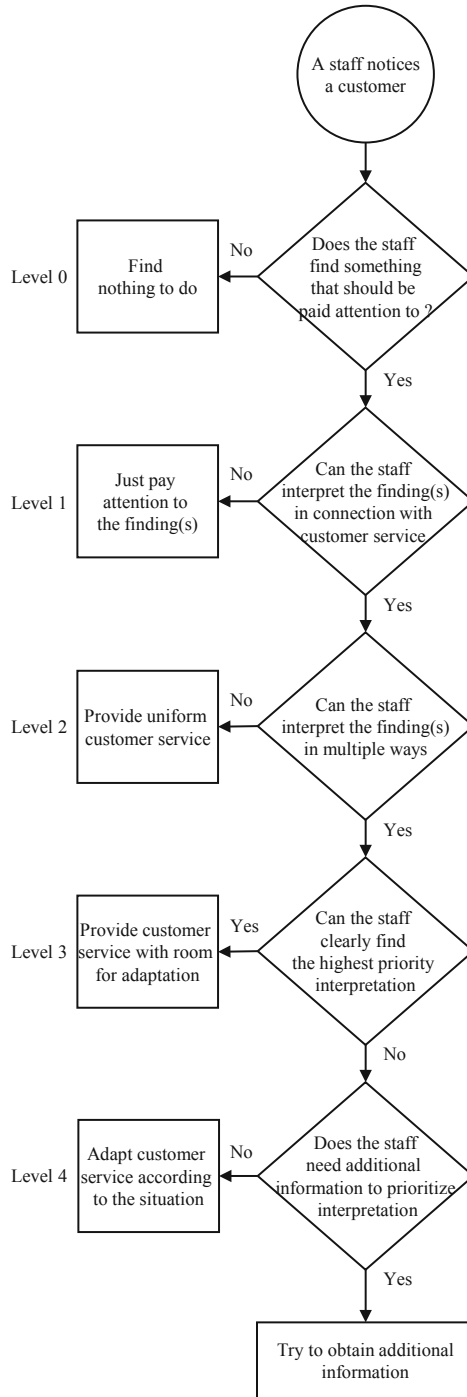


Fig. 8. A proposed model of staff's observation model.

When staff find something that multiple interpretations are possible for, and those interpretations are not clearly prioritized, then staff need to prioritize them by themselves. The fifth and final branch condition is about whether staff have enough information for prioritization or not. In the cases where they have much knowledge and information and can prioritize several interpretations, they should provide service according to those. But when the priority is not clear, the adaptation is more important, and has more necessity, than level 3. If the information is not enough and staff cannot judge what is important among several interpretations, they need to obtain additional information related to the findings.

This model expresses the difficulties of a staff's observation of a customer as "level". However, it does not mean that they always need to think deeply. For example, at Level 0, if there is actually nothing special to make note of, then they don't have to do anything. To provide an excellent customer service, service providers need to judge at what level they should deal with a particular finding or observation.

6.2 The Relationship Between Staff's Observations and Their Behavior

The proposed model includes several activities, and the process ends for each one of them at each level. These activities are related to the customer service that staff provide and they themselves are not part of the "observation."

The results of the analysis suggested that thinking too much, especially about what one cannot change or influence directly, often hinders one from taking action. In the additional interviews, some staff even said that they had difficulties in making a decision in many situations. They thought hard about a customer's condition in order to try and provide them a better experience at the hotel, but their failure to take a decision may have resulted in customer discomfort, and consequently they feel nervous about it.

One important point related to staff's behavior is they sometimes choose to watch over a customer and do nothing. The reason they act this way varies; it is mainly due to the fact that the staff don't have any idea what to do for the customer, because they are unable to choose one of multiple ideas or because even if they can do something with the current situation, they chose not to because they think that the customer might feel bad about it. Even considering good points of observation, service staff "*need to explore what guests mean when they say they feel comfortable—particularly as this or other emotions probably vary by customer segmentation, length of stay, or other factors*" [18]. Watching over a customer should be a general service requirement of all staff's behavior.

From the viewpoint of obtaining customers' information, staff are told that they can get information from the customer database or through interaction with customers. These are very similar suggestions to the result of our previous study [14]. However, one clear difference appears between superior staff and general staff. Superior staff use the database before a customer comes to the hotel. After the customer comes, they also observe the customer and obtain customer information through interaction. In contrast, general staff use the information in the database after a customer comes to the hotel for checking whether they are a regular or a new customer. Some standard staff said that they didn't want to assume whether a customer was a regular or not because the information was in the database and they couldn't check it. The manager of Super Hotel commented on this point that this difference in customer treatment, between

superior staff and general staff during the first interaction between a staff and a customer at the hotel, may considerably change the impression of the hotel for the customer. A customer database is a great help to customer service, and thus, service staff need to utilize the database effectively.

This study aims to obtain knowledge for human resource development including staff training. With our model, service providers are expected to be able to know which step is difficult for them regarding observations of customers, and this is one cause of difficulty with the provision of services. Several staff reported that by attending and participating in this investigation that it helped them to realize what they saw and what they actually thought and felt. It suggests that the methods of our investigation perhaps induce metacognition. That is an important function for staff training.

7 Conclusion

Superior service staff can always find something that should be paid attention to, and superior staff know how to interpret their findings and provide excellent customer service according to the situation. This study focusses on a staff's observation of customers. Through the analysis of the staff's observations, this study aimed to obtain knowledge for human resource development including staff training. With this aim, a model of staff's observation levels is proposed.

The observation investigation was conducted on the case of Super Hotel. Videos in accordance with the depicted scene of a customer entering the hotel were prepared. While experimental collaborators watched those videos, an eye tracking device with its analysis software was used to gather the point-of-sight data for staff without any extra stress and impact on the staff. While watching each video, the collaborators were asked to write as much information as they could about their observations and feelings.

From the results of the analysis, we obtained a list of items that the staff saw during their observations. Their thoughts about what they saw vary. However, some relationship between what the staff saw and what they felt from it were common for many staff members. All 3 of the superior staff often assumed multiple possibilities with one observed fact. One important fact related to staff's behavior is that they sometimes choose to just watch over a customer and do nothing directly. Watching over a customer should be a general requirement of service staff's behavior.

The limitation of this study is that the data used for analysis was taken from seven staff members who were all from the same hotel. More data from across the hotel industry is required to prove the model's efficiency. However, the proposed model is valuable as a draft model to express the difficulties related to a staff's observation.

Future works related to the modelling of staff's observations include the investigation of the actual provision of service, by analyzing the relationship between an observation and a staff's behavior more deeply. The development of training methods for staff observation is another proposal for future work. The authors proceeded in the development of a training method including VTS style discussion. For a review by staff after training, the review sheet is also discussed based on the findings through this research.

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