The Effect of Student Satisfaction and Diligence on Empathy for Other Students

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Abstract: A peer support program in which students voluntarily help other students on campus is gaining popularity in many Japanese universities. However, partly because of the top-down approach adopted by universities in order to introduce the system, students sometimes do not have sufficient empathic feelings toward other students. By referring to the research on organizational citizenship behavior and customer voluntary performance, this study examined whether or not students' satisfaction and diligence influenced empathy toward other students. A comparison of structural equation models revealed that these two antecedents independently affected students' empathy for other students. Further, this study discussed some implications of improving students' empathy for other students.

Keywords: peer support, empathy, satisfaction, OCB, CVP

1. Introduction

Many Japanese universities have begun to implement peer support systems or programs. The phrase “peer support” refers to situations in which colleagues or classmates help each other on a reciprocal basis. In many cases, universities have established a specific institution or program in which seniors are given the necessary training so that they can play the role of helpers and can then help or teach younger students who do not have enough knowledge about the university life.

Peer support is effective for both supporters (older students) and supported students (younger students). Supported students can gain not only the knowledge necessary for living on campus but also the opportunity to understand the importance of selfless service from others. They are expected to develop a spirit of reciprocal contribution to other students in the future. Supporters can also benefit in numerous ways from this system. Primarily, they can improve their interpersonal communication skills that are vital in their present and future social life. It is often said that students experience interpersonal anxiety because of the lack of sufficient interpersonal skills, and peer support facilitates the development of such skills by making them accumulate crucial experiences in which they sincerely listen to the concerns of other students and address them as much as possible.

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Japan has a collectivistic culture in which mutual help is considered to be crucial. Peer systems are regarded as one of the most effective methods for teaching students the importance of mutual help and understanding within this culture.

Although peer support programs are expected to spread to more universities, some problems still remain with the system. One of the biggest problems is the lack of students' self-initiative because of the top-down approach adopted by the university. For example, a professor at one of the Japanese universities that has a peer support program criticized the program as follows:

"Since 2005, we have invited all freshmen to participate in this peer support program and have assigned several seniors in every department or course as supporters. Although all of the activities from preparation to implementation of the program can go like clockwork through this change, it is undeniable that the goal of developing students' initiative through the program tends to be lost...It can be said that the peer support program of the Faculty of Letters and Education has attained some progress in adjustment support for freshmen as they begin to live an academic life, but it is difficult to say that a culture has been fermented in which supported students voluntarily help other students during the following year on a reciprocal basis... The implementation method should be improved in the days ahead" (Miyao, 2007, translated by the author).

This indication is important. The top-down peer support program is necessary but not sufficient to encourage students to develop a spirit of mutual help. Therefore, it is necessary to reveal the factors that enhance or influence students' empathic feelings toward others on the campus. This study attempts to seek clues in order to understand these factors on the basis of the findings regarding customers' and employees' voluntary behaviors and emotions toward others, and to discuss how those factors could be applied in the university education system.

2. The Framework of Customer Voluntary Performance

Customers are not obliged to contribute to the shops in which they obtain goods or services. However, many of them voluntarily do something good for the shop, such as helping staff members, introducing the shop to their acquaintances, or sharing constructive opinions with the shop owner. Bettencourt (1997) referred to these discretionary contributive behaviors of customers as customer voluntary performance (CVP) behaviors. According to his description of the three dimensions of CVP, customers sometimes serve as promoters of a store by encouraging their friends to shop at the store (loyalty). Similar to the staff at the store, customers also contribute by trying to help in keeping the store clean (cooperation). Moreover, they sometimes share constructive suggestions with the store owner on how to improve its service (participation).

By drawing an analogy between customers and students, the latter can also be considered to be customers of a university. Compared to the regular customers of shops, students tend to have more commitment to their university because they believe that the university's social reputation influences their present and future life. They also spend a long time on a small campus, where they interact with professors and other students. The long experience on campus also influences their commitment to their university.

Many students voluntarily perform various tasks for their university, much like regular customers at a shop. They sometimes promote the university among high school students (loyalty), help professors (cooperation), and get involved in activities in order to improve the university's quality of education or its reputation (participation).

While Bettencourt (1997) mainly focused on behaviors that directly contribute to an organization rather than through other customers, Rosenbaum and Massiah (2007) expanded the scope of CVP by adding
the dimensions of customer empathy and responsibility. In order to explain why customers feel empathetic or responsible toward other unacquainted customers, Rosenbaum and Massiah (2007) argued, "customers who receive social support in a service establishment will respond by providing other customers in the establishment with feelings of love and of genuine concern" (p. 262). This is a sort of reciprocity in the social exchange relationship. Instead of directly contributing back to the establishment, such as a shop, many customers wish to support other customers who use that establishment.

On the basis of the discussions of Bettencourt (1997) and Rosenbaum and Massiah (2007), we assumed that a positive feeling toward the university, or student satisfaction with the university, would have a positive effect on students’ empathy for other students. The results of an empirical research on organizational citizenship behavior (OCB) also lead to similar predictions about the effect of positive feelings. Job satisfaction has been regarded as one of the basic antecedents of OCB of employees since the basic idea of OCB was first proposed by Organ (1977). Organ and Ryan (1995) confirmed the validity of the effect of job satisfaction on OCB through a meta-analysis of 28 studies.

Bettencourt (1997) attempted to confirm the relationship between satisfaction and his three dimensions of CVP. However, the result of his structural equation modeling (SEM) showed that the only significant effect of satisfaction was on cooperation, and this effect was negative, while the correlations between satisfaction and all CVPs were significantly positive. In fact, the indicators of the goodness-of-fit of Bettencourt’s structured model did not meet the conventional standard level (CFI = 0.86, TLI = 0.85), and we believe that this model could have been improved. Moreover, the CVP in this study included only behaviors toward the organization, and it did not focus on contributive behaviors toward other customers.

Satisfied students recognize the social exchange relationship in which they benefit from the university’s program and other students. They have a strong motive to be empathetic toward other students in return for extra benefits from their relationships. Therefore, it is still reasonable to think that students’ satisfaction has a positive effect on empathy toward other students.

Although, to the best of our knowledge, no study has directly addressed the relationship between students’ satisfaction and empathy for other students, university satisfaction has been measured in many ways by researchers. Previous studies on student satisfaction can be generally classified into two kinds. Some studies focused on students’ attitudes toward specific aspects of university education because the researchers wanted to examine their effectiveness. These aspects included online courses offered by a university (Beqiri, Chase, & Bishka, 2009; Palmer, & Holt, 2008), a laptop computer lending service at a university’s library (Feldman, Wess, & Moothart, 2008), and university hostels (Khozaei, Ayub, Hassan, & Khozaei, 2010). Marozzi (2009) is considered to be similar even though it uses multiple items because this study focused mostly on the rooms of university buildings (the library, computer room, and classroom).

In contrast, some other researchers created and used multiple items to measure student satisfaction with various aspects of a university. Liu, Lin, and Chan (2010) studied students’ satisfaction with various aspects of teaching that included teaching environment, content, and method. Further, Helgesen and Nesset’s (2007) measurement model was more comprehensive because they considered student satisfaction with facilities, service quality, and university in general, and investigated the relationships among them. It is unlikely that empathy for other students is influenced only by satisfaction with a specific aspect of the university; we should consider the overall satisfaction with various aspects of the university as a probable antecedent of empathy.

We also focused on the effect of students’ diligence
on developing empathy for other students because diligence is one of the basic formal obligations that they fulfill. Furthermore, a study revealed that job involvement affected OCB (Diefendorff, Brown, Kamin, and Lord, 2002; Chughtai, 2008; Ueda, Yoshimura, and Asanuma, 2009). Job involvement is associated with employees’ willingness to perform their formal duties enthusiastically. If the students’ diligence can be considered to correspond with the job involvement of employees, the findings on the relationship between job involvement and OCB form the basis for predicting the effect of diligence on empathy.

This prediction is quite important for those who are interested in sustaining the effect of the peer support programs. These programs can encourage students to help other students by evoking empathic feelings that have already been nurtured in the social exchange relationship with the university. Conversely, we should focus on the factors that can nurture students’ empathy rather than implementing the program through the top-down initiative.

3. Hypotheses

As previously described, the researchers believed that students’ satisfaction and diligence would influence their empathy for other students. Therefore, we proposed the following two hypotheses:

Hypothesis I: Students’ satisfaction with the university will positively influence their empathy for other students.

Hypothesis II: Students’ diligence will positively influence their empathy for other students.

The relationship between satisfaction and diligence is more complicated. If a university is simply regarded as an advanced educational institution, satisfied students can be assumed to perform their formal job duties to a greater extent, that is, study harder than other students. However, a university provides students with more than education. Some students are satisfied with the university’s high reputation or the good opportunity of meeting many friends on campus despite not being interested in studies. Furthermore, diligent students benefit from the university’s resources and professors’ experience, and tend to utilize university facilities more than other students. This might imply that they more likely to be satisfied with the university than other students are. However, diligent students tend to have higher expectations from the university. For example, students want the university library to have more books and materials in order to support their study. Therefore, we hypothesized that there would be no mediating effect of satisfaction and diligence, as shown below;

Hypothesis III: Satisfaction will not mediate the relationship between diligence and empathy.

Hypothesis IV: Diligence will not mediate the relationship between satisfaction and empathy.

4. Method

4.1 Sample

Data was collected from a sample of undergraduate students at a private university in Tokyo, Japan. Most students had graduated from high schools located in metropolitan areas, and had directly enrolled in the university with no work experience. Therefore, their ages were expected to be between 18 and 22 years. Moreover, it was also assumed that since most of them still live with their families, they did not have financial constraints that would require them to seek financial assistance.

The students were given self-administered questionnaires during one of their classes, and were asked to complete them after the class. The participation was voluntary. When the students completed the questionnaires, they received a small stationary product in return for their contribution. Some data was rejected owing to the lack of response or inappropriate response. Consequently, the final sample size was 258.
4.2 Measures

All responses were measured on 7-point Likert scales ranging from “strongly disagree” (1) to “strongly agree” (7).

Satisfaction with the university was measured with four-item scales that were created in this study. As described earlier, student satisfaction has been measured in various ways depending on research objectives. Although some researchers focused on attitudes toward a particular aspect of a university, as described earlier, we should comprehensively recognize students’ satisfaction because students’ positive or negative feelings toward various aspects of the university could influence their empathy. The four items in this study were satisfaction with the university facilities, quality of teaching, the university’s social reputation, and support from professors and clerical staff. The exemplary statement was, “I am satisfied with the facilities at this university.” Three of these four items were consistent with those in Helgesen and Nesset (2007), namely, facilities, service quality, and university in general. We added the last aspect because it could stimulate students’ empathic feelings.

Diligence was measured with four-item scales that were created in this study. It is difficult to objectively measure students’ diligence. For example, attendance at every class is considered to be normal or compulsory in many top-ranked Western universities, but the students who are present at every class are considered to be quite diligent at many Japanese private universities. Therefore, we added the expression “compared to other students” in each of the questions. Thus, the following four expressions were added to the questions: “Compared to other students, I attend all the classes at this university”; “Compared to other students, I positively utilize this university’s facilities, such as the university library”; “Compared to other students, I work hard to take notes on lectures”; and “Compared to other students, I concentrate on professors’ lectures.”

Empathy was measured with four-item scales.

Rosenbaum and Massiah (2007) expanded the concept of Bettencourt’s (1997) CVP by adding two scales, namely, customers’ empathy and responsibility to other customers. We created four-item scales specifically to measure students’ empathy for other students by referring to the two scales by Rosenbaum and Massiah. The four items were as follows: “I care about other students at this university.” “I feel happy when I see that students at this university are active in the society.” “I feel happy when I see that this university has a high reputation in the society,” and “I think it is important for us to have a spirit of mutual cooperation as students at this university.”

5. Results

5.1 Basic Statistics

Table 1 shows the means, standard deviations, reliabilities of variables, and correlations between the two variables. The values of the indicator of reliability (Cronbach’s alpha) ranged from 0.720 to 0.813, which means that each of the scales had relatively high internal consistency. As expected, correlations between two variables were significantly positive (p < 0.01). The exploratory factor analysis (principal factor method, with varimax rotation) for 12 items revealed that three different factors could be recognized as initially expected (Table 2).

Table 1 Means, Standard Deviations, Reliabilities, and Correlations

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>Satisfaction</th>
<th>Diligence</th>
<th>Empathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisf</td>
<td>4.231</td>
<td>1.0557</td>
<td>(0.809)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dilig</td>
<td>4.908</td>
<td>1.1539</td>
<td>.271</td>
<td>(0.813)</td>
<td></td>
</tr>
<tr>
<td>Empath</td>
<td>.201</td>
<td>.0661</td>
<td>.424</td>
<td>.262</td>
<td>(0.720)</td>
</tr>
</tbody>
</table>

5.2 Hypothetical Structural equation Model

First, the structural equation model (Model I) that assumed the independent influences of satisfaction and diligence on empathy was constructed and tested for fitness. Figure 1 shows all the significant estimates of the paths between the variables (p < 0.05). The path
Table 2 Results of Exploratory Factor Analysis

<table>
<thead>
<tr>
<th>Items</th>
<th>Factors 1</th>
<th>Factors 2</th>
<th>Factors 3</th>
<th>Corrected Communalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: I care about other students at this university.</td>
<td>0.908</td>
<td>0.178</td>
<td>0.652</td>
<td>0.895</td>
</tr>
<tr>
<td>2: I feel happy when I see that students at this university are active in the society.</td>
<td>0.229</td>
<td>0.148</td>
<td>0.752</td>
<td>0.64</td>
</tr>
<tr>
<td>3: I feel happy when I see that this university has a high reputation in the society.</td>
<td>0.071</td>
<td>0.038</td>
<td>0.577</td>
<td>0.301</td>
</tr>
<tr>
<td>4: I think it important for us to have a spirit of mutual cooperation as students at this university.</td>
<td>0.317</td>
<td>0.062</td>
<td>0.391</td>
<td>0.257</td>
</tr>
<tr>
<td>5: I am satisfied with the facilities at this university.</td>
<td>0.051</td>
<td>0.093</td>
<td>0.078</td>
<td>0.438</td>
</tr>
<tr>
<td>6: I am satisfied with how classes are taught.</td>
<td>0.816</td>
<td>0.225</td>
<td>0.207</td>
<td>0.725</td>
</tr>
<tr>
<td>7: I am satisfied with the university’s social reputation.</td>
<td>0.592</td>
<td>0.439</td>
<td>0.246</td>
<td>0.412</td>
</tr>
<tr>
<td>8: I am satisfied with the support from professors and staff.</td>
<td>0.733</td>
<td>0.082</td>
<td>0.171</td>
<td>0.573</td>
</tr>
<tr>
<td>9: Compared to other students, I positively attend the class.</td>
<td>0.660</td>
<td>0.655</td>
<td>0.113</td>
<td>0.448</td>
</tr>
<tr>
<td>10: Compared to other students, I positively use the facilities of the university.</td>
<td>0.053</td>
<td>0.621</td>
<td>0.099</td>
<td>0.399</td>
</tr>
<tr>
<td>11: Compared to other students, I diligently take notes on lectures.</td>
<td>0.189</td>
<td>0.797</td>
<td>0.107</td>
<td>0.674</td>
</tr>
<tr>
<td>12: Compared to other students, I concentrate on professors’ lectures during classes.</td>
<td>0.227</td>
<td>0.773</td>
<td>0.069</td>
<td>0.655</td>
</tr>
</tbody>
</table>

Rotation Sum of Squared Loadings

<table>
<thead>
<tr>
<th>Items</th>
<th>Rotation Sum of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>2.641 2.162 1.647</td>
</tr>
<tr>
<td>% of Variance</td>
<td>18.674 16.617 13.723</td>
</tr>
<tr>
<td>Cumulative</td>
<td>35.674 36.691 50.416</td>
</tr>
</tbody>
</table>

from satisfaction to empathy was significantly positive ($\beta = 0.47$), which supported Hypothesis I. The estimate of the path from diligence to empathy was weaker than that of the path from satisfaction but was still significantly positive ($\beta = 0.17$), which supported Hypothesis II. The indicators of the goodness-of-fit of this model were relatively good. (As shown later in Table 3, GFI = 0.946, AGFI = 0.918, TLI = 0.957, CFI = 0.967, and RMSE = 0.051.) Although the value of RMSE was slightly higher than the standard level (RMSE < 0.05), on the whole, the values of these indicators confirmed the validity of this model.

5.3 Alternative Structural equation Models

As previously discussed, it was important to examine the causal relationship between satisfaction and diligence by creating other possible models and comparing these models with the hypothetical one in terms of the goodness-of-fit.

Accordingly, we created two models. Model II assumed that diligence fully mediates the relationship between satisfaction and empathy, and Model III assumed that satisfaction fully mediates the relationship between diligence and empathy. Figure 2 shows only the significant paths between the latent variables. As shown in Figure 2, all the estimates of the paths of the two models were significantly positive ($p < 0.05$).

Table 3 showed the indicators of the goodness-of-fit of the three models. Both alternative models had reasonably good values of indicators. However, when they were compared to Model I, it was found that Model I had better indicators of fit than the other models. The values of AIC also showed that this model was better than the other two models. Therefore, we concluded that satisfaction and diligence independently influenced empathy, according to Model I. This result supported Hypotheses III and IV.

![Figure 1 The Estimates of the Paths of the Hypothetical Structural equation Model (Model I)](image)

6. Discussion and Conclusion

This study revealed that students’ satisfaction and diligence independently influenced their empathy for other students. The effect of satisfaction might be difficult to intuitively imagine, but this finding has
important implications for those who are implementing, or intend to implement, peer support programs at universities. As previously mentioned, peer support programs are an excellent way to encourage students to help other students through empathy, and students need such programs because they usually do not know how to develop their intention to help others into concrete actions. However, the peer support program does not necessarily increase students’ empathic feelings toward other students. The results of this study showed that universities should not only implement such programs but also improve students’ satisfaction with it.

As advanced educational institutions, universities can improve students’ satisfaction by providing them with quality educational services.

The positive effect of diligence on empathy is also an interesting finding. We are prone to assume that diligent students have a sense of intense competition with other students and that they thereby lack empathic feelings toward them. In particular, the collectivistic Japanese society emphasizes the spirit of mutual help, and therefore, teachers and parents inhibit children from developing a strong sense of competitiveness with others. Therefore, the finding of the positive effect of diligence on empathy will encourage teachers and parents to reflect on the importance of encouraging competitiveness among students.

Despite these important implications, this study has some limitations that could be overcome by future studies. First, this study collected data only from the students of a private university located in Tokyo, Japan. Most of these students live in metropolitan areas in and around Tokyo. In some cases, it is said that many people who live in cities do not like to interact extensively with other people. Moreover, this university is well-known for the fact that many of its students are from elite socio-economic backgrounds. It is therefore supposed that this living environment had some effect on their responses to the questionnaire, although we do not know how it actually affected the responses.

In the future, we will collect and compare data from students of a different university, such as a national university in the countryside.

Second, the measures that we used are quite simple and could be improved. In particular, assessing situations in which students are empathic toward other students is rather complicated. For example, a diligent student might feel empathic only toward other diligent students who seem similar to him/her. A student who is satisfied with a specific advanced class might be empathic toward other students who were sick and absent from that class. However, the same student might not have any empathy for other students who cannot participate in that advanced class. Therefore, future studies should further investigate the situations in which the effects of antecedents on empathy are concretely specified.

Further, the satisfaction scales in this study were simple. Although they had relatively high reliability, we suppose that students have a different degree of satisfaction with various aspects of the university and that each degree of satisfaction might have a distinctive effect on their contribution to this study. For example, some OCB studies revealed that leader-member exchange (LMX) affected OCB for individuals (OCBI), while perceived organizational support (POS) affected OCB for organizations (OCBO) (Williams & Anderson, 1991). Satisfaction with human interaction might influence empathy for others, while satisfaction with impersonal factors such as a university’s facilities and reputation might facilitate a direct contribution to the university.

As the university advancement rate rises, the mission of the universities diversifies. Universities should not only provide young people with advanced education but also develop a more fundamental approach of holistic development. We hope that the results of this study will help universities to devise effective methods for nurturing empathic students who will progress in today’s society.
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References


