

Some Antecedents of Employee Engagement of Japanese Companies

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Abstract

Corporate human resource managers and institutional investors place a high value on employee engagement (EE) in Japanese companies and demand proactive disclosure of this information as human capital information (HCI). Currently, this demand for disclosure has been growing stronger in Europe and the United States. Therefore, Western HR consulting firms are providing services to Japanese companies with suggestions for improving EE. It is unclear whether this service is suitable because of the differences in employment systems between Western countries and Japan. However, EE should be appropriately enhanced in Japanese companies. This paper uses an employee survey of Japanese companies to identify EE antecedents. A multiple-indicator model was created by analyzing the covariance structure of the survey results. Four factors were extracted from this analysis. Two antecedents, “Empowerment” and “Loyalty,” were identified as constituting “Engagement.” This result is generally consistent with the “job engagement” results of Saks’ study. This consistency indicates that our research results are adequate. In the future, we will also investigate organizational engagement, which is missing in our findings, and identify more EE antecedents.

Keywords: covariance structure analysis, employee engagement, empowerment, factor analysis, loyalty

1 Introduction

In recent years, an increasing number of companies have adopted employee engagement (EE) as one of their human resource management (HRM) indicators. In addition, institutional investors have shown a strong interest in human capital information (HCI), and companies are required to disclose this information proactively [1]. Engagement is a component of HCI, which is becoming increasingly important for many stakeholders [2]. It may be defined as the state prior to marriage, a promise, a contract, and so on. Among these meanings, the following definition, “when you become involved with someone or something in order to understand them,” is relevant in HRM in companies [3]. Thus, engagement can be considered a psychological state in which

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employees and the company, management, or co-workers try to understand each other and their interpersonal relationships. The meaning of engagement has transformed into a willingness to contribute to the company and an attachment to it. The concept of engagement has spread in HRM.

In Western countries, several HR consulting firms measure the level of EE. Western HR consulting firms use the results of this measurement to suggest ways to improve EE for their clients. These firms also provide engagement improvement services to Japanese companies. In 2017, Gallup measured EE using the “Q12” measurement method. The results showed that Japan ranked 132nd out of 139 countries, and only 6% [4] (pp. 140) of the employees showed high EE. Meanwhile, in the US, 32% of the employees showed high EE [4] (pp. 183). An international comparison of work engagement scores conducted by the Ministry of Health, Labour and Welfare also shows that Japanese companies score low [5].

These results alone are insufficient to conclude that the ratio of highly-engaged employees is low in Japanese companies. One possible reason for the low scores of Japanese companies is that Western survey items are used directly to survey their employees. Japanese companies employ people based on their membership, which, in turn, is premised on long-term employment. However, Western companies employ people based on job descriptions predefined by the company. Therefore, the definition of engagement and survey items of Western companies may not align with the employment styles of Japanese companies, and the survey may not be appropriate for them. In order to properly measure EE in Japanese companies, it is necessary to identify its characteristics in them and conduct a survey based on such characteristics.

Therefore, this study aims to identify the characteristics of EE in Japanese companies and extract the antecedents that contribute to it. Specifically, using the results from the “Survey on Work Styles and the Current Conditions Related to Labor Shortage” [6] conducted by the Japan Institute for Labour Policy and Training, we identify antecedents that influence engagement and which factors are more strongly linked to it.

As shown in Table 1, there are very few studies on engagement in Japan compared to foreign countries.

Table 1: Number of journal articles on engagement studies [7]

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
World wide	36	30	48	59	56	115	134	197	215	247
Japan	1	1	0	3	1	0	1	4	3	2

As mentioned above, the antecedents of employee engagement in Japanese companies may differ from those in Western companies. The academic question in employee engagement research around the world is "What kind of relationship between employees and the company is essential for effective corporate activities? The antecedents of employee engagement in Japanese companies provided by this study may provide a new perspective on the academic question.

The remainder of this paper is organized as follows. Section 2 describes previous research on the antecedents that constitute engagement. Section 3 presents the data and methods of analysis. Section 4 presents the results of the factor analysis using covariance structure analysis and the relationships among the factors using a multiple indicator model. Section 5 discusses how prior

research supports the results of the analyses. Finally, Section 6 concludes the paper.

2 Previous Studies on Antecedents of Engagement

Kahn's psychological concept of personal engagement marks the beginning of research on engagement. Kahn, a psychologist, defined personal engagement as "the harnessing of organizational members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances" [8] (pp. 694). In addition, Kahn mentioned that it was "the simultaneous employment and expression of a person's 'preferred self' in task behaviors that promote connections to work and to others, personal presence (physical, cognitive, and emotional), and active, full role performances" [8] (pp. 700). In order to do so, it was required that the work was meaningful, reasonably safe, and resourced proportionately [8]. According to Kahn's argument, engagement can be interpreted as employees' feelings about their work. Later, May, Gilson, and Harter empirically studied a model of personal engagement [9]. They found that "meaningful," "reasonably safe," and "resourced proportionately" were significantly related to engagement.

Schaufeli, Salanova, González-Romá and Bakker define work engagement as "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" [10] (pp.74).

- * Vigor is characterized by high levels of energy and mental resilience while working, the willingness to invest effort in one's work, and persistence even in the face of difficulties (pp.74)
- * Dedication refers to being strongly involved in one's work and experiencing a sense of significance, enthusiasm, inspiration, pride, and challenge (pp.74)
- * Absorption is characterized by being fully concentrated and happily engrossed in one's work whereby time passes quickly and one has difficulties with detaching oneself from work (pp.75)

Schaufeli and Bakker developed the Utrecht Work Engagement Scale (UWES) to measure the degree of engagement based on this definition [10]. The UWES consists of 17 items: 6 items for vigor, 5 items for dedication, and 6 items for absorption. Appendix 1 shows the UWES questionnaire items.

The UWES has a 17-item, a shorter 9-item, and an even shorter 3-item ultrashort version, respectively [11]. In Japan, many studies have used the UWES for doctors, nurses, and other medical professionals. Moreover, many papers and research results use the UWSE [12]. However, few EE studies have been conducted, and most of the results are based on surveys conducted by practitioners.

Saks defined EE as "a distinct and unique construct that consists of cognitive, emotional, and behavioral components that are associated with individual role performance" [13] (pp.602). Saks divided the concept of EE into two categories: job engagement (fulfilling one's job role) (JE) and organizational engagement (fulfilling one's role as a member of the organization) (OE). He argued that "The social exchange theory (SET) provides a theoretical foundation to explain why

employees choose to become more or less engaged in their work and organization” [13] (pp.603). The SET explains how relationships are initiated and maintained through the secure exchange of rewards and imposition of costs between individuals [14]. Based on his definition of EE and previous research, Saks hypothesized that EE mediated the relationship between antecedents and consequences. Further-more he designed the EE model, as shown in Figure 1.

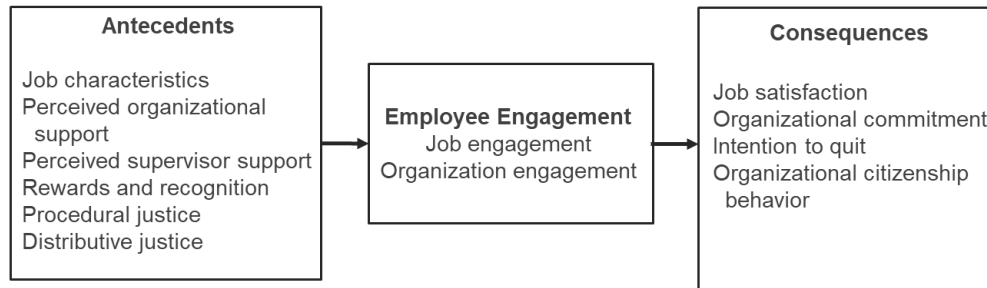


Figure 1: A model of the antecedents and consequences of EE

Saks surveyed 102 employees in various occupations and organizations to confirm the validity of the model shown in Figure 1. He analyzed the survey results and concluded that while the two measures of engagement were related, they were also significantly different among participants, indicating significantly higher JE than OE [13]. Saks identifies six antecedents of EE. Among these antecedents, Saks identified “Job characteristics” and “Perceived supervisor support” as the two main antecedents comprising JE, according to the survey results [13]. In addition, he identified “Perceived organizational support” and “Procedural justice” as the two main antecedents comprising OE [13]. Saks hypothesized that JE and OE would have four consequences. Survey results showed that JE and OE were significantly positively related to “Job satisfaction,” “Organizational commitment,” and “Organizational citizenship behavior” and negatively related to “Intention to quit” [13]. Saks confirms that EE mediates antecedents and consequences [13].

Saks separated EE into JE and OE; then, he identified their antecedents. Simultaneously, he clarified their consequences. Consequently, he proved the validity of the engagement model.

3 Data and Methods

This section presents the data and methods used in the analysis.

3.1 Data

The data used for the analysis are the results of the 2019 “Survey on Work Styles and the Current Conditions Related to Labor Shortage” conducted by the Japan Institute for Labour Policy and Training [6]. Table 2 presents the characteristics of the questionnaires distributed, survey participants, survey period, and collection rate of the validated responses.

Table 2: Survey Characteristics

Survey Participant (Corporate Survey)	20,000 Japanese companies with 20 or more employees
Survey Participant (Worker Survey)	The surveyed companies distributed the survey to a total of 101,846 full-time employees employed by them (In company size 20–299 employees, 5 survey forms; 300–900 employees, 6 survey forms; over 1000 employees, 8 survey forms)
Survey Period	March 1–20, 2019
Validated Response Collected	Worker Survey: 16,752 (effective collection rate: 16.4%)

The survey was distributed and collected via mail [6]. The portion of the survey on workers' attitudes toward their work was the subject of analysis. The questionnaire consisted of 24 items, as shown in the Appendix 2. The survey participants answered the questions using a 5-point Likert scale.

3.2 Methods

A covariance structure analysis was performed using the data in Section 3.1 to create our multiple-indicator model. Standardization coefficients were calculated at the time of the model creation. In addition, three indicators were used to analyze the overall model fit: Goodness-of-Fit Index (GFI), Adjusted GFI (AGFI), and Root Mean Square Error of Approximation (RMSEA). The GFI and AGFI indicate the explanatory power of the model. Usually, explanatory power increases as the number of parameters increases. Therefore, the AGFI adjusts for the effects of the number of parameters. RMSEA measures the degree of deviation between the model and true distribution. We used SPSS statistics 24.0 and Amos 28.0 to perform these analyses [15].

4 Results

The previous studies in Chapter 3 provided some definitions of each engagement, basic scales for measuring engagement, and an engagement model. In this chapter, we perform factor analysis and covariance structure analysis from the survey in the previous chapter and, then, create an engagement model using a multiple-indicator model.

4.1 Factor analysis

To perform structural covariance analysis, we first determined the latent variables defined by the observed variables. Factor analysis was performed on all questionnaire items. Thereafter, we extracted 4 factors by drawing a scree plot (Figure 2) with eigenvalues greater than 1. Furthermore, it is reasonable to adopt four factors based on inflection points [15].

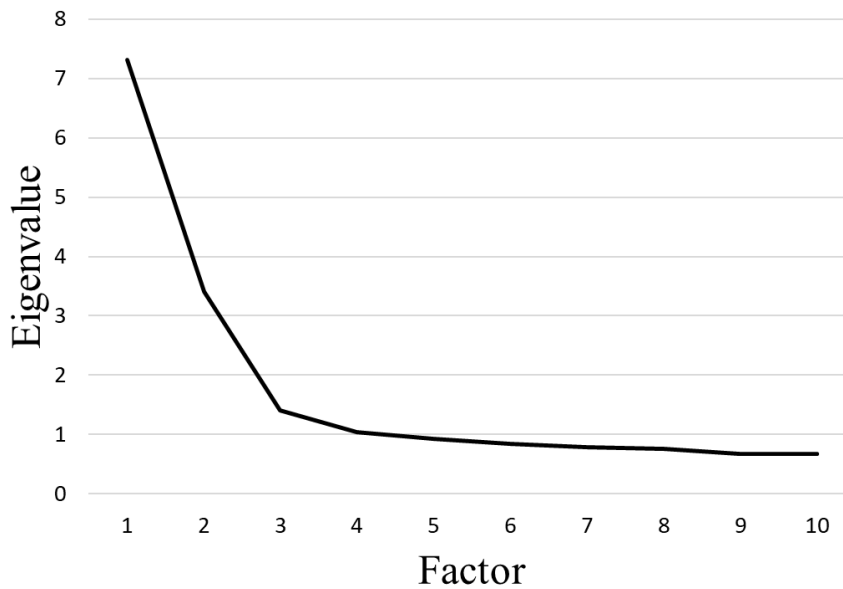


Figure 2: Scree plot of the factor analysis

Consequently, a model comprising 19 observed variables and 4 latent variables was created. Table 3 shows the factor analysis results of Q27, “Please describe your perception of your current main job (at the time of the survey, excluding side jobs)” [6]. The factors were extracted using the maximum likelihood method with Promax rotation. The first factor includes the ultrashort version of the UWES (items: vigor, dedication, and absorption) in the context of employees’ work and is named “engagement.” “Satisfaction” in work, which is as influential as the other three items, is also included under engagement. The second factor is “empowerment” and includes items such as the “degree of discretion” in work, “actively supporting other employees without instructions or orders,” and “working independently without instructions or orders,” which enable employees to demonstrate their inherent abilities and act spontaneously based on their autonomy. The third factor is “loyalty.” It includes items that indicate an understanding and favorable impression of the “company philosophy, strategy, and business content” and “company culture,” as well as items related to “career prospects” and “having senior employees as role models” within the company. The fourth factor, “workload,” includes items that express the physical workload, such as “stress and fatigue,” “busyness,” and “work concentration,” as well as mental workload, such as “obligation” and “guilty.” These four factors cumulatively explained 42.9% of the variance [15].

Table 3: Factor Analysis Results

Factor name	Question	factor loading			
Engagement	Q1	-0.119	-	0.183	0.719
	Q2	0.176	0.182	-	0.61
	Q3	-	0.159	-	0.773
	Q4	-	-0.118	0.191	0.683
Empowerment	Q6	0.51	-	-0.129	0.308
	Q7	0.599	-0.182	-	-
	Q9	0.703	0.118	-	-
	Q13	0.869	-	-0.11	-
	Q23	0.517	0.238	-	-

Loyalty	Q11	-	-	0.6	0.142
	Q12	-0.315	-	0.65	0.11
	Q14	0.322	0.162	0.623	-0.221
	Q15	-	-	0.863	-
Workload	Q17	-	0.631	-	-0.161
	Q18	-	0.763	-	-
	Q19	-	0.503	-	-
	Q20	-0.265	0.417	0.146	0.103
	Q21	0.125	0.628	-	0.152
	Q22	0.203	0.595	-	-
	-	Q5	0.131	-0.335	0.379
-	Q8	0.161	-	0.296	0.335
-	Q10	0.34	-0.146	0.333	-
-	Q16	0.214	-0.119	0.187	0.332
-	Q24	0.276	0.107	0.162	0.103

4.2 Structural equation modeling

A multiple indicator model with the factors obtained in Section 4.1 as latent variables is shown in Figure 3. This model is designated as the “engagement model” in this paper. Each factor and question item with the largest factor loadings in Table 3 are linked together and presented in Figure 3. The following results were obtained for the goodness-of-fit indices of the model. The GFI and AGFI, which are indicators of the explanatory power of the model, show high values of 0.87 and 0.84, respectively, indicating a good fit for the model. RMSEA, a measure of model deviation, is 0.09, which is not sufficiently low to reject the results [15].

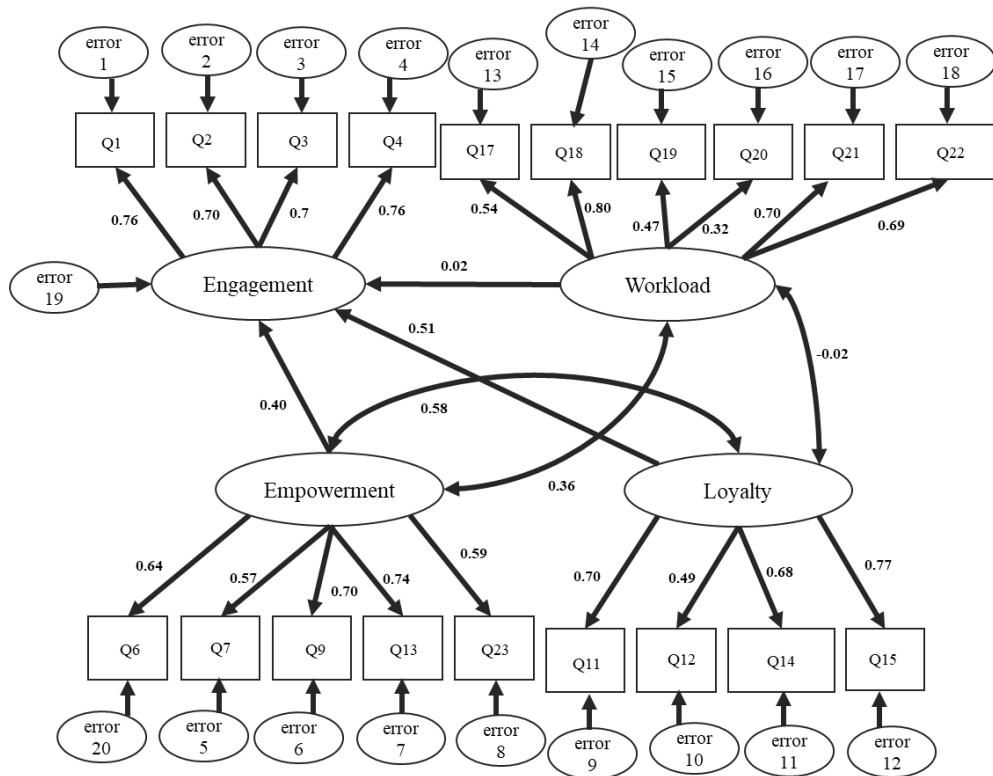


Figure 3: Engagement model

“Loyalty” has the greatest prescriptive power for engagement with a standardized coefficient of 0.51. This is a reasonable result because loyalty is synonymous with faithfulness, implying an alignment between the company’s culture and future goals. Therefore, it may have some overlap, for example, between job and organization, with the definition of engagement, which can be considered one of the reasons for its high level of influence. However, in this instance, loyalty refers to employees’ attachment toward their company and that between the employees of the upper and lower levels, rather than those in an equal relationship [15].

“Empowerment” also had a significant correlation with engagement, with a path coefficient of 0.40. “Empowerment” means that when a company grants an employee a certain level of authority, the employee can work autonomously. It is considered to be linked to fulfilling the employees’ desire for recognition, as well as to considering what it means to work [15].

The correlation coefficient between empowerment and loyalty is as high as 0.58, indicating that these two factors strongly influence one another. Satisfying employees’ desire for recognition improves loyalty and attachment to a company and *vice versa* [15].

“Workload” shows no effect at all on “Engagement.” This is because, in the context of work, “Engagement” includes positive psychological states, while “Workload” is a questionnaire that indicates a negative state. Furthermore, the correlation coefficient between “Empowerment” and “Workload” is 0.36, indicating a strong relationship between the two. “Empowerment” may cause employees to take on a certain amount of workload [15].

The above results indicate that the two antecedents of “Engagement” are “Empowerment” and “Loyalty” [15].

5 Discussions

5.1 Validation by comparing the results of the analysis in Chapter 4 with the JE

We confirm the validity of our results by comparing the results of the present analysis with those of Saks’ previous study described in Chapter 3. The first step is to confirm that the factors classified in the present analysis are the same as those in previous studies. The next step is to examine the antecedents of EE in Japanese companies based on the strength of their prescriptive power and correlation coefficients.

The concept of engagement is a psychological state of being positively involved in something; however, Saks used Maslach’s definition, which stated that JE is characterized by energy, involvement, and efficacy [16] (pp. 416). Both types of engagement are concepts of positive psychological states, and we position them as the same concept. The “Engagement” section also includes the UWES “Vigor,” “Dedication,” and “Absorption” questionnaire items [6]. And then again, Saks’ JE also included questionnaires about “absorption” and “dedication” to the work [13] (pp. 617). Based on the above comparison, it is safe to assume that “Engagement” and JE in the previous studies have the same meaning.

The concept of “loyalty” is a feeling of support and attachment [17]. Saks used “organizational commitment” to refer “to a person’s attitude and attachment toward their organization” [13] (pp.602). A comparison of the concepts of “Loyalty” and “organizational commitment” shows

that they indicate the same. The questionnaire items scoring “Loyalty” include “liking the corporate culture” and “understanding of the company” [6]. The questionnaire items scoring “organizational commitment” include “attachment to the organization” and “sense of belonging to the organization” [13] (pp. 619). Based on the above comparison of the concepts and the questionnaire items of “Loyalty” and “organizational commitment,” it would be consistent to assume that the two are the same.

“Empowerment” is the ability to autonomously carry out one’s work [18]. The “job characteristics” in a previous study consisted of five concepts (skill variety, task identity, task significance, autonomy, and feedback) [19]. The “job characteristics” used by Saks consisted of five concepts (skill variety, task identity, task significance, autonomy, and feedback) [19]. Autonomy is an “Empowerment” concept and one of the “job characteristics” concepts. The questionnaire items scoring “Empowerment” included the “degree of work discretion” and “independent approach to work.” The questionnaire items scoring “job characteristics” included “autonomy” toward work and “being able to decide one’s own work” [13] (pp. 618). Thus, it can be said that “Empowerment” and “job characteristics” have the same meaning.

However, “Workload” was not included in Saks’ factors for EE. Saks understood from Maslack’s study [16] that burnout, including “workload,” was the opposite of JE. Thus, it is likely that he did not include “Workload” in the investigation.

Consequently, it can be seen that the factors obtained in this analysis are part of those used in Saks’ study.

Next, the antecedents of “Engagement” and “job engagement” are discussed in terms of the strength of the correlation and prescriptive power.

“Loyalty” is the most prescriptive antecedent of “Engagement.” Saks also stated that “job engagement” was significantly positively related to “organizational commitment” [13] (pp. 609). Saks’ study confirms this study, in which “Loyalty” had a strong prescriptive impact on “Engagement.” In the results of this analysis, “Empowerment” is another antecedent of “Engagement.” From a multiple-regression analysis, Saks showed that “job characteristics” is the most significant antecedent of JE [13] (pp.611). Saks also states that “employees who are provided with jobs that are high on the job characteristics are more likely to reciprocate with greater job engagement” [13] (pp. 613). Saks’ research is consistent with “Empowerment” being an antecedent of “Engagement.” The abovementioned discussion suggests that the antecedent of “Engagement” is not significantly different from that of JE.

The multiple indicator model of EE in Japanese companies presented in this study is the first to show that the results of Saks’ analysis are valid for Japanese companies. The results of this study show that the antecedents of Japanese employee engagement are the same as some of the antecedents of Western EE.

According to Kanda [21] (pp.128), the antecedents of EE in Japanese companies are personal and work resources. And the consequence of EE is employee loyalty. Work resources include job autonomy. Therefore, the results obtained in this study are supported.

On the other hand, this study confirmed a strong correlation between loyalty and empowerment.

The strong correlation indicates that both are antecedents. Saks' study did not show this relationship. Similarly, Kanda's study did not show this relationship. Saks' organizational commitment and Kanda's employee loyalty were hypothesized to be a mediating result of EE. Neither Saks nor Kanda assumed that organizational commitment or employee loyalty were antecedents when constructing their hypotheses.

The new finding from this study is that empowerment and loyalty are antecedents of engagement.

5.2 Lack of research on OE

Saks' study included the antecedents of OE, which is another important component of EE. The data used for this analysis did not include any questionnaires of OE, as it was not categorized as a factor. To better clarify the antecedents of EE, a survey on OE should be conducted. We developed a conceptual model in which EE has a two-layered structure that exists simultaneously in both formal and informal organizations [20] by drawing on Barnard's organizational theory [22]. The antecedents of OE for Saks were "Perceived organizational support" and "Procedural justice" [13]. These antecedents are related to Barnard's definition of formal organization, a system of consciously coordinated activities, and forces of two or more people. However, Saks did not conduct a survey on informal organizational engagement; thus, it did not reveal the totality of OE. To address this issue, a future task is to identify the antecedents of engagement in informal organizations based on the model we have developed.

6 Conclusion and Future Works

We have become aware of the need to identify the characteristics of engagement among employees in Japanese companies and to conduct a survey based on these characteristics to properly score them. Therefore, this paper uses the results of a survey conducted among Japanese companies to extract factors and investigate which factors are more strongly linked to engagement. Four factors were extracted: "Engagement," "Empowerment," "Loyalty," and "Workload." Then, we found a certain validity that "Empowerment" and "Loyalty" were antecedents of EE, as derived from the multiple-indicator model. We also found a strong correlation between empowerment and loyalty, and that both are antecedents of engagement. This is a new finding that can contribute to academic questions. The data used in this analysis did not include a questionnaire regarding OE. Therefore, future research will investigate the antecedents of OE, particularly engagement in informal organizations, which has not been done in previous studies, and will further clarify the antecedents of EE in Japanese companies.

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Appendix 1 [10]

Work & Well-being Survey (UWES) ©

The following 17 statements are about how you feel at work. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, cross the “0” (zero) in the space after the statement. If you have had this feeling, indicate how often you feel it by crossing the number (from 1 to 6) that best describes how frequently you feel that way.

	Almost never	Rarely	Sometimes	Often	Very often	Always
0	1	2	3	4	5	6
Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day
1	At my work, I feel bursting with energy					
2	I find the work that I do full of meaning and purpose					
3	Time flies when I'm working					
4	At my job, I feel strong and vigorous					
5	I am enthusiastic about my job					
6	When I am working, I forget everything else around me					
7	My job inspires me					
8	When I get up in the morning, I feel like going to work					
9	I feel happy when I am working intensely					
10	I am proud of the work that I do					
11	I am immersed in my work					
12	I can continue working for very long periods at a time					
13	To me, my job is challenging					
14	I get carried away when I'm working					
15	At my job, I am very resilient, mentally					
16	It is difficult to detach myself from my job					
17	At my work I always persevere, even when things do not go well					

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Appendix 2 [6] (pp.82)

Q1	Feeling energized and energized at work
Q2	I am enthusiastic about my work.
Q3	I get carried away with my work
Q4	Feel satisfied with their duties
Q5	Feeling satisfied with the ease of work
Q6	High self-efficacy (confidence in work)
Q7	High degree of job discretion (the degree to which one can freely choose the means and methods of carrying out one's work)
Q8	Feel that they are growing through their work
Q9	They actively support other employees even without instructions or orders.
Q10	Good interpersonal relationships in the performance of their work
Q11	Have a clear career outlook on how to build a career at the company where they work
Q12	Have senior employees who can serve as role models in the workplace
Q13	They work independently without instructions or orders.
Q14	Understands the company's philosophy, strategy, and business activities
Q15	Have a favorable impression of the corporate culture
Q16	I am engaged in the work I want to do
Q17	Feel undue stress or fatigue at work
Q18	Always busy and juggling many tasks at once
Q19	Feel obligated to work hard, even when they do not enjoy it
Q20	Feeling guilty about time off work
Q21	Working at high speed for at least half of the working hours
Q22	Work is concentrated on himself/herself
Q23	Understands the significance and importance of his/her work
Q24	Labor productivity (results per hour) has increased compared to three years ago