

# Factors Affecting Employee Engagement Based on an Employee Attitude Survey in Japan

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## Abstract

Japanese companies are beginning to recognize the importance of employee engagement. However, many companies have not been able to leverage employee engagement to increase their corporate value. This is possibly because it is difficult to determine and utilize the factors affecting employee engagement. To clarify the relationship between engagement and its influencing factors, we constructed a multiple indicator model and performed a covariance structure analysis. Data for the analyses were obtained from the 2019 “Survey on Work Styles and the Current Conditions Related to Labor Shortage,” conducted by the Japan Institute for Labour Policy and Training. We then extracted four factors to create an “engagement model”. The study identified two factors that influence engagement: empowerment and loyalty. The results can be used to inform policies on improving employee engagement by leveraging these factors.

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

## 1 Introduction

In recent years, many Japanese companies have tried to measure their employees’ engagement levels. In human resource management, engagement refers to being “involved with someone or something in order to understand them” [1]. In other words, employee engagement can be thought of as the degree of mutual involvement and understanding between employees and the company or management or among employees. With time, the concept of employee engagement has transformed; presently, this term refers to employees’ desire to contribute to their company and is indicative of their attachment to the company.

If Japanese firms were to measure their employees’ contextual engagement, what results would they obtain? The results on employee engagement in Japanese firms thus far have been terribly low score. In 2017, Gallup measured employee engagement using the “Q12” measurement technique [2]. The results showed that Japan ranked 132 out of 139 countries, and only 6% of the employees showed high employee engagement compared with 32% of employees in the U.S. [2]. Other surveys have also shown similar results. For example, international comparisons of work engagement show that Japan's score is low [3]. However, it is difficult to draw fundamental conclusions about Japanese firms’ employment engagement beyond the fact they have a low percentage of highly engaged employees by primarily using these results. This is because firms conducting employee awareness surveys follow different definitions of employee engagement.

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Accordingly, the survey items used to measure it also vary, which makes it difficult to identify the factors influencing Japan's low employee engagement.

Identifying the reasons for Japan's low ranking and low employee engagement is necessary for improving its employee engagement levels. This requires establishing a method of measurement that is tailored to employees belonging to Japanese companies. Therefore, assuming that employee engagement depends on workplace conditions, this study estimates the factors influencing engagement among the employees of Japanese firms based on the results of a survey on the current labor shortage and work styles. We then identify which factors are more strongly linked to engagement. We used covariance structure analysis to perform a factor analysis of the survey results. We found that loyalty and empowerment were the most influential factors affecting engagement. Deriving the conditions that give rise to these factors could contribute to improving the corporate value of Japanese companies.

The remainder of the paper is structured as follows. Section 2 describes the previous works. Section 3 shows a method of analysis. Section 4 indicates a structural equation modeling. The relationships among each factors are discussed in section 5. Finally, Section 6 concludes the paper.

## 2 Previous Studies

### A. What is "Engagement"?

Research on engagement began after Kahn proposed the concept of personal engagement [4]. Kahn, who was 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" [4]. In addition, he highlighted "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" [4]. To do so, the following conditions were required: "their work meaningful, reasonably safe, and resourced proportionately" [4]. According to Kahn's definition, engagement can be interpreted as an employee's feelings about their work.

Schaufeli et al. defined work engagement as "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" [5].

In Japan, Arai et al. defined it as "[employees'] voluntary willingness to contribute based on the relationship with the organization and job" [6]. Hashiba defined it in greater detail as "a state in which employees can take actions that lead to results by combining a voluntary attitude, willingness, and stance to contribute to the organization through their work with the knowledge, understanding, and abilities to actually make a contribution" [7]. Before providing this definition, Hashiba reviewed the key definitions of engagement provided by researchers and consulted firms, consultants, and research organizations. As a result, he also noted the gaps in definitions among the companies and consultants he surveyed [7]. Hashiba then came up with a common understanding that "At the very least, it is a desirable situation for both the individual and the organization, which manifests itself through work" [7].

The concept of engagement has been interpreted by various researchers and has multiple definitions. The commonality among these definitions confirms that individuals' motivation for their work has a significant impact on engagement.

### B. Conceptualizing Engagement

The concept of engagement can pertain to various aspects such as customers, organizations, and work. Considerable research has been conducted on the concept of employee engagement, which is the engagement that employees have with their company.

Based on previous research, Saks summarizes employee engagement as “a distinct and unique construct that consists of cognitive, emotional, and behavioral components that are associated with individual role performance” [8]. Saks organized employee engagement in terms of employees’ role at work and membership within an organization. He divided the concept of employee engagement into "job engagement" and "organization engagement". The concept of social exchange theory was necessary for these two types of engagement to be effective [8]. Research on the social exchange theory from the field of social psychology, which explains the formation of human relationships, has been conducted from various perspectives [9].

Figure 1. schematically illustrates Saks' concept of employee engagement [10]. It proposes that companies generate employee engagement among their employees by offering them certain incentives. Due to employee engagement, employees are engaged in their work in a forward-looking manner, which results in sales, profits, and other contributory outcomes for the company. The social exchange of incentives and contributions occurs through employee engagement. Among the different modes of social exchange, the economic exchange of salaries and benefits as compensation for performing one’s role is easy to understand.

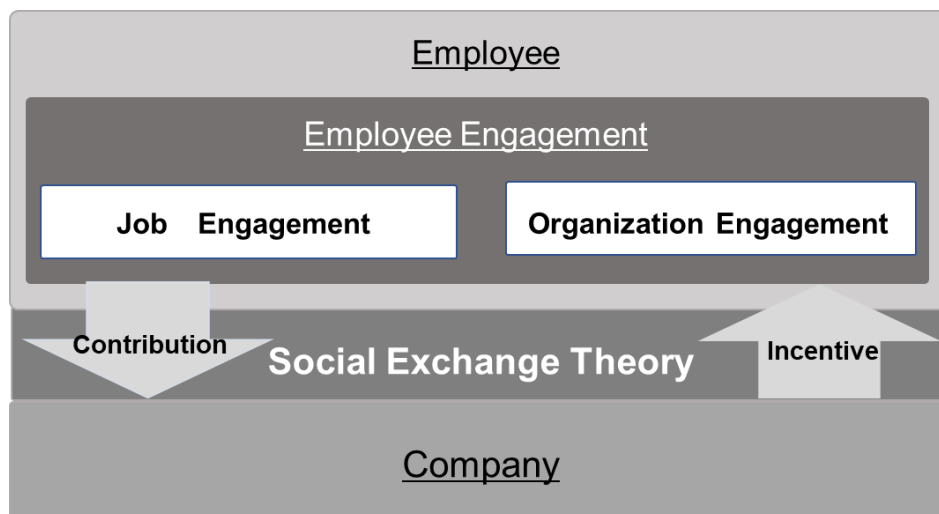


Figure 1: Saks' conceptual model of employee engagement [10].

Shuck and Wollard [11] examined several employee engagement studies, focusing on the various definitions of employee engagement and noted that these definitions relate to each researcher's unique field. Shuck and Wollard concluded that the definition of employee engagement is not constant and can be misleading. However, based on their findings, they defined it as “an individual employee’s cognitive, emotional, and behavioral state directed towards desired organizational outcomes” [11].

### C. Scales of Engagement

Schaufeli and Bakker developed the Utrecht Work Engagement Scale (UWES) to measure the degree of work engagement. Figure 2 shows the UWES questionnaire. The UWES uses three definitions of work engagement: vigor, dedication, and absorption, which are measured using six, five, and six items, respectively, using a total of 17 questions. Schaufeli [12] describes each component as follows:

- “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.”
- “Dedication refers to being strongly involved in one’s work and experiencing a sense of significance, enthusiasm, inspiration, pride, and challenge.”
- “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.”

The UWES has a 17-item scale version (Figure 2), a shorter 9-item scale version, and recently, an even shorter 3-item scale version has been introduced.

**Work and Well-Being Survey (UWES)**

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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 felt it by crossing the number (from 1 to 6) that best describes how frequently you feel that way.

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Never 0	Almost Never 1	Rarely 2	Sometimes 3	Often 4	Very Often 5	Always 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

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1. At my work, I feel bursting with energy.<sup>a</sup> (VI1)
2. I find the work that I do full of meaning and purpose. (DE1)
3. Time flies when I am working. (AB1)
4. At my job, I feel strong and vigorous.<sup>a</sup> (VI2)
5. I am enthusiastic about my job.<sup>a</sup> (DE2)
6. When I am working, I forget everything else around me. (AB2)
7. My job inspires me.<sup>a</sup> (DE3)
8. When I get up in the morning, I feel like going to work.<sup>a</sup> (VI3)
9. I feel happy when I am working intensely.<sup>a</sup> (AB3)
10. I am proud of the work that I do.<sup>a</sup> (DE4)
11. I am immersed in my work.<sup>a</sup> (AB4)
12. I can continue working for very long periods at a time. (VI4)
13. To me, my job is challenging. (DE5)
14. I get carried away when I am working.<sup>a</sup> (AB5)
15. At my job, I am very resilient, mentally. (VI5)
16. It is difficult to detach myself from my job. (AB6)
17. At my work, I always persevere, even when things do not go well. (VI6)

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Source: Schaufeli and Bakker (2003).  
 Note: VI = Vigor scale; DE = Dedication scale; AB = Absorption scale.  
 a. Shortened version (Utrecht Work Engagement Scale-9 [UWES-9]).

Figure 2: Utrecht Work Engagement Scale (UWES) questionnaire.

Saks explained that “engagement is not an attitude; it is the degree to which an individual is attentive and absorbed in the performance of their roles [8]” and established the relationship between assumptions and outcomes in the employee engagement model, as shown in Figure 3. In this model, engagement is bound by the relationship between antecedents and consequences, with labor conditions acting on employee engagement as antecedents. Consequences of engagement include job satisfaction and organizational commitment [8].



Figure 3: A model of the antecedents and consequences of employee engagement [8].

The assumptions and results pertaining to these relationships provide a scale for measuring employee engagement.

### 3 Data and Method

To The studies mentioned in the previous section provided the definitions and measures of engagement. In this section, we analyze the data obtained from a prominent survey on labor conditions to reveal the factors influencing engagement.

#### A. Data

Based on the aforementioned model of the antecedents and consequences of employee engagement, the data for this study were obtained from 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 [13]. The survey included questions for both workers and corporates. However, we considered only the worker survey. Table 1 presents the characteristics of the questionnaires distributed, survey participants, survey period, and collection rate of validated responses. The survey was distributed and collected by mail [13].

Table 1: 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, five survey forms; 300–900 employees, six form survey; over 1000 employees, eight-forms survey)
Survey Period	March 1–20, 2019
Validated Response Collected	Worker Survey: 16,752 (effective collection rate: 16.4%)

Question 27 (Q27) of the worker survey pertained to the workers' attitudes toward their work. Therefore, our study utilizes the results of Q27 in its analysis. Q27 comprises 24 items; the participants were requested to respond to them based on a 5-point Likert scale.

### B. Method

Based on the aforementioned survey of employee attitudes toward work in Japanese companies, we developed a multiple indicator model and conducted a covariance structure analysis to determine the relationship between engagement and the factors affecting engagement [14].

In this study, standardization coefficients were calculated during the time of model creation. Typically, variables used in the analysis may have different scales and trends of values, making comparisons difficult. Therefore, the standardization coefficients were standardized to variable values and to a range of -1 to 1. Three indices were used to analyze the goodness-of-fit of the overall model: goodness-of-fit index (GFI), adjusted GFI (AGFI), and root mean square error of approximation (RMSEA) [15]. The GFI and AGFI indicate the explanatory power of a model. Both indices take values between 0 and 1, and the closer the values are to 1, the more explanatory power the model has. Usually, the explanatory power increases as the number of parameters increase. Therefore, the AGFI adjusts for the effect of the number of parameters. RMSEA measures the degree of deviation between the model and the true distribution; the closer the value is to 0, the better the model fits.

We used SPSS statistics 24.0 and Amos 28.0 to perform these analyses.

## 4 Results

### A. Factor Analysis

To perform a structural covariance analysis, we first determined the latent variables defined by the observed variables. Factor analysis was performed on all the questionnaire items. Thereafter, we extracted four factors by drawing a scree plot (Figure 4) that had eigenvalues greater than 1. Furthermore, it is reasonable to adopt four factors based on the inflection points. As a result, a model was created comprising 19 observed variables and 4 latent variables.

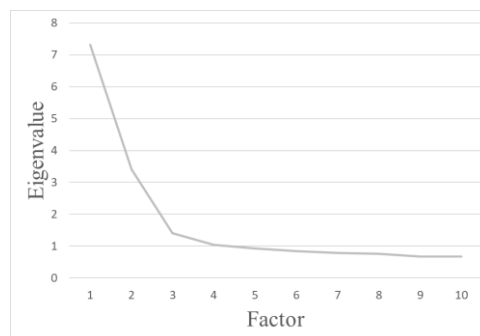


Figure 4: Scree plot of the factor analysis.

Table 2 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)". Factors were extracted using the maximum likelihood method with a promax rotation.

Table 2: Questionnaire Items and Factor Analysis Results

Factor name	Number	Questionnaire	factor loading			
Engagement	1	Feeling energized at work (vigor in work)	-0.119	-	0.183	0.719
	2	I am enthusiastic about my work (dedication in work)	0.176	0.182	-	0.61
	3	I get carried away with my work (absorption in work)	-	0.159	-	0.773
	4	Feel satisfied with their duties	-	-0.118	0.191	0.683
Empowerment	6	High self-efficacy (confidence in work)	0.51	-	-0.129	0.308
	7	High degree of job discretion (the degree to which one can freely choose the means and methods of carrying out one's work)	0.599	-0.182	-	-
	9	They actively support other employees even without instructions or orders.	0.703	0.118	-	-
	13	They work independently without instructions or orders.	0.869	-	-0.11	-
Loyalty	23	Understands the significance and importance of his/her work	0.517	0.238	-	-
	11	Have a clear career outlook on how to build a career at the company where they work	-	-	0.6	0.142
	12	Have senior employees who can serve as role models in the workplace	-0.315	-	0.65	0.11
	14	Understands the company's philosophy, strategy, and business activities	0.322	0.162	0.623	-0.221
Workload	15	Have a favorable impression of the corporate culture	-	-	0.863	-
	17	Feel undue stress or fatigue at work	-	0.631	-	-0.161
	18	Always busy and juggling many tasks at once	-	0.763	-	-
	19	Feel obligated to work hard, even when they don't enjoy it	-	0.503	-	-
	20	Feeling guilty about time off work	-0.265	0.417	0.146	0.103
	21	Working at high speed for at least half of the working hours	0.125	0.628	-	0.152
-	22	Work is concentrated on himself/herself	0.203	0.595	-	-
-	5	Feeling satisfied with the ease of work	0.131	-0.335	0.379	0.19
-	8	Feel that they are growing through their work	0.161	-	0.296	0.335
-	10	Good interpersonal relationships in the performance of their work	0.34	-0.146	0.333	-
-	16	I am engaged in the work I want to do	0.214	-0.119	0.187	0.332
-	24	Labor productivity (results per hour) has increased compared to three years ago.	0.276	0.107	0.162	0.103

The first factor includes the ultrashort version of the UWES scale of vigor, dedication, and absorption in the context of employees' work and was designated as "engagement". "Satisfaction" with work, which was as influential as the other three items, was 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 own decisions.

The third factor is "loyalty". It includes items that indicate an understanding and favorable impression of "corporate philosophy, strategy, and business content" and "corporate culture", as well as items related to "career prospects" and "having senior employees as role model" 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 "guilt". These four factors cumulatively explain 42.9% of the variance.

### B. Structural Equation Modeling

Based on the factor analysis, four factors were extracted (engagement, empowerment, loyalty, and workload) and included in a multiple indicator model as latent variables. This model was designated as the "engagement model" and is shown in Figure 5. Each factor and the question items with the largest factor loadings in Table 2 were linked together and are represented in Figure 5. Question items were shortened so that they could be included in Figure 5.

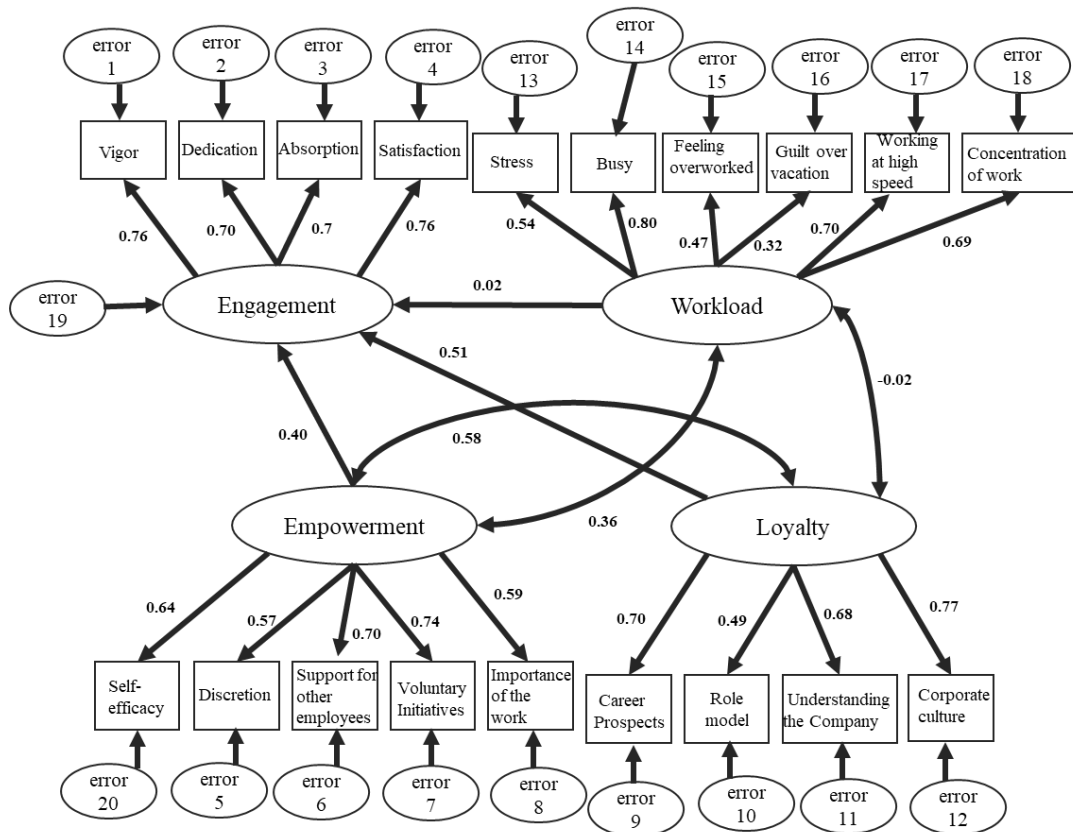


Figure 5: Multiple indicator model on employee engagement.

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 of the model. The RMSEA, a measure of model deviation, is 0.09, which is not sufficiently low but not low enough to reject the results.

Loyalty has the greatest prescriptive power for engagement with a standardized coefficient of 0.51. This is followed by empowerment at 0.40. Workload has a negligible effect.

## 5 Discussion

Based on the results of the analysis in Section 4, we discuss the factors that influence engagement or are strongly associated with engagement.

“Loyalty had the most significant relationship with engagement” is a reasonable result because loyalty is synonymous with faithfulness, which implies an alignment between the company’s culture and one’s future goals. Therefore, it may have some overlap, for example job and organization, with the definition of engagement, which can be considered one of the reasons for its high level of influence. However, here, loyalty refers to employees’ loyalty toward their company and that between the employees of upper and lower levels, rather than those in an equal relationship.



Empowerment also had a significant correlation with engagement, with path coefficient of 0.40. The fact that employees are given a certain level of authority by the company and are able to work at their own discretion is thought to satisfy their need for recognition and is linked to their motivation to work. Furthermore, feeling recognized increases faithfulness and commitment toward one's company, thereby contributing to increased engagement and loyalty. The correlation coefficient between empowerment and loyalty was as high as 0.58, indicating that these two factors strongly influence one another. Our study validated that empowerment improves loyalty and leads to engagement.

Furthermore, the correlation coefficient between empowerment and workload was 0.36, indicating a strong relationship between the two. Being empowered and engaged in a task suggests that one may be evaluated and empowered at the same time as being subjected to a certain

However, we did not find a significant relationship between workload and engagement. This may be because engagement includes positive psychological states, while workload questions indicate negative psychological states. Maslach et al. defined engagement as "characterized by energy, involvement, and efficacy, the direct opposite of the three burnout dimensions of exhaustion, cynicism, and inefficacy" and developed a burnout measurement method based on this definition [16].

The analysis of the survey of workers' attitudes toward their work conducted in this study has allowed us to identify the factors that influence engagement to a certain extent. However, we have not yet been able to clarify why empowerment and loyalty have emerged as the topmost influencing factors. Clarifying the reasons these factors generate engagement may reveal the organizational structure and mindset required to increase engagement.

## **6 Conclusion and Future Work**

Considering the need to establish a measurement method that is tailored to the Japanese context, this study analyzed the results from a survey on attitudes toward work among employees of Japanese companies to clarify the factors that influence engagement. Our analysis revealed empowerment and loyalty as two factors that significantly influence engagement.

Our analysis of the nature of engagement draws from the perspective of organizational theory. In Chester Bernard's organizational theory, organizations pertain to formal and informal organizations [17]. We hypothesized that engagement occurs in both types of structures. In examining the organizational structure and methods of fostering the mindset necessary to increase engagement, we aimed to build a new engagement model. Comparison of the engagement model revealed in this study with the factors of engagement reveals new factors of engagement.

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