



Article

Building a Thriving Organization: The Antecedents of Job Engagement and Their Impact on Voice Behavior

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Abstract: For an organization to become sustainable, it is essential to keep employees engaged in their jobs with enthusiasm. Thus, this study presents and tests an integrative model of job engagement. Based on Kahn's model, we adopted person–job fit (P–J fit), psychological contract fulfillment, and self-efficacy as the antecedents of job engagement, verified how these antecedents affect job engagement, and examined how they influence voice behavior. Data were collected from 189 subordinate–supervisor dyads from public corporations and private enterprises in South Korea. The results of the analysis suggested that all antecedents have positive relationships with job engagement. We also found that job engagement is positively related to employees' voice behavior, and fully mediates the relationships between the antecedents and voice behavior. Moreover, our findings suggested that perceived coworker support moderates the relationship between job engagement and voice behavior.

Keywords: job engagement; person–job fit; psychological contract fulfillment; self-efficacy; voice behavior

1. Introduction

In the rapidly changing business world, organizational sustainability is a vital goal for long-term success [1]. To achieve and maintain sustainability, employees' job engagement can serve as a crucial driver of organizational performance and sustainable success [2]. Engaged employees not only tend to maintain enthusiasm and vigor toward their job, but also often demonstrate a strong commitment to their organization [3,4]. For this reason, they are expected to successfully perform their tasks and often go beyond the call of their duties [3]. As such, job engagement may help organizations to improve or sustain their competitive advantage [3]. Furthermore, job engagement is directly linked to work-related wellbeing (e.g., Schaufeli et al., Caesens et al.) [5,6]. Given that organizational sustainability concerns social performance, which is deeply related to the process of improving employees' wellbeing, job engagement may be the key aspect of social performance that can lead to the achievement of organizational sustainability [1,7].

Although the definition of job engagement may differ depending on the researcher, it seems to converge to a general definition as a high level of effort put into the tasks of a job by an individual [8,9]. Many researchers have suggested that job engagement is positively related to various work outcomes. That is, it leads to high performance levels of in-role behaviors [3], and is also highly likely to motivate employees to act toward a direction that benefits the organization. According to empirical studies, job engagement can lead to organizational citizenship behaviors (OCB) [9], proactive behaviors [10],

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contextual performance [3], and innovative work behaviors [11]. Given the benefits that job engagement provides, there are both theoretical and practical implications of exploring what encourages employees to engage at work and how engagement affects meaningful behavioral outcomes. As a result, this study examines the antecedents of job engagement and their impact on employees' voice behavior based on Kahn's [8] study, which is recognized as the first research that theorized job engagement.

Kahn [8] maintained that when individuals have a psychological experience of meaningfulness (i.e., Q1: How meaningful is it to me to engage in this work?), safety (i.e., Q2: How safe is it to do that?), and availability (i.e., Q3: Do I have the ability to do that?), they will fully engage in their jobs. May et al. [4] carried out an empirical analysis of Kahn's [8] study and established empirical grounds for a theory that demonstrated that these three psychological conditions (i.e., meaningfulness, safety, and availability) had an important relationship with job engagement. Based on Kahn's [8] three dimensions of psychological conditions (i.e., work, social system, individual elements), this study adopts person–job fit (i.e., work characteristics), psychological contract fulfillment (i.e., social context), and self-efficacy (i.e., personal trait) as the antecedents of job engagement, that is, what might drive employees' attitude and behaviors. Therefore, the first objective of this study is to explore the relationships of the antecedents with job engagement.

The second objective is to investigate the impact of job engagement on employees' voice behavior. Voice behavior is a type of extra-role behavior challenging the status quo with the intent of making situations better [12]. Exploring voice behavior is especially meaningful given the importance of rapid innovations today [12]. Voice behavior includes making constructive suggestions, expressing ideas, and persuading other people to consider those ideas or directions [13]. Since expressions of, or suggestions for, altering status quo may hurt relations with others, employees may feel that it is risky to do so and, thus, be reluctant to speak up in some situations [13,14]. Even so, improving voice behavior is a practical way for engaged employees not to rest on their personal performance but to contribute to constructive changes in an organization. Thus, it is worth exploring how to enable engaged employees to be willing to speak up by taking such risks. Nevertheless, so far, there are limited studies on the direct effect of job engagement on voice behavior [15]. Thus, in this study, we verify the relationship between job engagement and employees' voice behavior.

Furthermore, we consider the moderating role of perceived coworker support by focusing on an environment that can encourage employees to increase their contribution to the organization through job engagement. Nowadays, due to emphasis on team-based work and a flat organizational structure, employees tend to interact more frequently with coworkers than with their supervisors [16]. Thus, the support from coworkers may have a significant impact on the employees' attitude and behaviors. While voice behavior may require sufficient resources (i.e., job engagement) to enhance speaking up and the expression of suggestions [13,17], some individuals may still suffer from stress and anxiety due to lack of job engagement. In this regard, by applying the Conservation of Resources theory (COR theory; Hobfoll) [18], this study makes the assumption that coworker support may compensate for the resource deficiency. Therefore, the third objective of this study is to investigate the moderating effect of perceived coworker support in complementing job engagement.

In summary, this study contributes to the literature on job engagement and voice behavior in at least four ways. First, we add to the literature by suggesting the antecedents of job engagement in terms of work characteristics, social context, and personal traits based on the three dimensions of psychological experiences that Kahn [8] suggested. Specifically, we shed light on the role of person–job fit (P–J fit), psychological contract fulfillment, and self-efficacy. As for psychological contract fulfillment, it is worth noting that our study deals with how "employees' expectations" affect their job engagement; however, so far, this has not been widely explored. Second, we investigate the relationship between job engagement and voice behavior. This is meaningful in that there are few studies on the direct effect of job engagement on voice behavior within the scope of this research. Third, this study aims to investigate the mechanism that explains how the antecedents influence employee voice behavior via job engagement. Thus, our study notes the mediating role of job engagement in the relationship between

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the antecedents and voice behavior. Fourth, this study highlights the role of perceived coworker support as a complementary resource for when the level of job engagement is low. Figure 1 presents the conceptual model of this study.

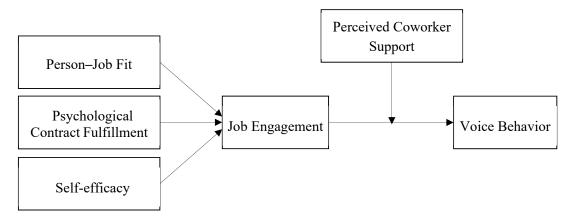


Figure 1. Hypothesized model.

2. Theoretical Background and Hypotheses Development

2.1. Job Engagement and Antecedents

2.1.1. P-J Fit and Job engagement

As jobs have an internal motivational aspect, the interaction between a person and their job is an important factor that can influence the decision over whether to put one's energy into a job or to demonstrate job engagement [3]. The P–J fit indicates the degree of congruence between personal and job characteristics, and can be divided into the need-to-supply (N–S) fit, which indicates the degree of congruence between an employee's demand and the reward given by the job, and the demand–ability (D–A) fit, which indicates the degree of congruence between a job's demands and an employee's ability [19].

According to Kahn [8], employees ask themselves how important the job is to them (i.e., psychological meaningfulness) before deciding whether to fully devote their physical, cognitive, and emotional resources. Psychological meaningfulness is a feeling of reward from investing oneself in work, and it requires the experience of doing something worthwhile and feeling a sense of give-and-take from the job. If both the D–A fit and N–S fit are high, employees and their work can have the experiences of giving to, and taking from, each other. Subsequently, this work will provide the employees with meaning, leading to job engagement. In the same line, Christian et al. [3] reported that the perception of the N–S fit and D–A fit can be an important antecedent for determining an employee's will to invest.

As one would expect, evidence suggests that employees are enthusiastic about their jobs when they are perceived to be highly appropriate for their jobs [20]. For example, Maslach and Leiter [21] found evidence in the field of education that the perception of the P–J fit might have a positive relationship with job engagement. Shuck et al. [22] also suggested similar results through a study on the effect of the P–J fit on job engagement. In a more recent study, researchers have suggested that P–J fit mediates the relationship between leadership and job engagement (e.g., transformational leadership, Bui et al.; empowering leadership, Cai et al.) [23,24]. Therefore, we hypothesize the following:

Hypothesis 1-1. *P–J fit is positively related to job engagement.*

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2.1.2. Psychological Contract Fulfillment and Job Engagement

Kahn [8] argued that psychological safety, which is an important psychological state for eliciting job engagement, is related to social system factors. In other words, if employees feel that situations are reliable, safe, and predictable with regard to the behavioral results, such factors are more likely to elicit job engagement. One of the representative conceptions that deal with employees' expectations of their organization is the psychological contract. A psychological contract is a belief system that recognizes mutual obligations and promises in an individual employee's relationship to an organization [25]. As psychological contract fulfillment would lead employees to endure risks accompanied by an honest expression of themselves without the fear of negative results, it could elicit job engagement [4]. In a recent study, a few researchers have suggested that different types of psychological contracts have different impacts on job engagement [26].

The relationship between psychological contract fulfillment and job engagement may be explained from the viewpoint of the social exchange theory (SET; Blau) [27]. According to the SET, an obligation occurs through interaction between parties with relationships of mutually reciprocal dependence, and the relationships of the parties who abide by specific rules, and they can evolve into reliability, loyalty, and mutual dedication [28]. As this "rule" involves reciprocity and reward, if employees received economic, social, and emotional resources from an organization, they would feel a sense of duty to return the favor to the organization [28]. Being fully immersed in their roles and dedicating more cognitive, emotional, and physical resources may be a good way for employees to repay the organization's positive behaviors. Therefore, if psychological contract fulfillment is highly recognized, or, in other words, if the organization meets the expectations of employees in terms of working conditions and rewards, employees are highly likely to increase their levels of job engagement as a way of repaying the organization with a positive attitude or action [29]. In addition, as psychological contract fulfillment allows employees to predict their relationships with the organization in a stable manner, employees are likely to be committed without fear when they make decisions regarding whether to invest their own resources [30]. Therefore, we hypothesize the following:

Hypothesis 1-2. Psychological contract fulfillment is positively related to job engagement.

2.1.3. Self-Efficacy and Job Engagement

Psychological availability, which was Kahn's final psychological condition [8], is defined as the belief that employees have the physical, emotional, and psychological resources necessary to commit themselves to their work. Only if employees believe that they have the resources necessary to engage in their roles will they demonstrate job engagement [4]. Generally, self-efficacy refers to overall confidence about a wide range of tasks, and belief that they can succeed through various types of achievements [31]. Individuals who believe that they are efficacious invest ample effort, which produces successful results [32]. Many previous studies have suggested that an employee with a higher level of self-efficacy is more likely to set a difficult and high goal and to endure difficulty as well as demonstrate engagement in achieving the goal (e.g., Bandura, Llorens et al., Simbula et al.) [33–35]. In addition, Consiglio et al. [36] suggested that employees' self-efficacy contributes to job engagement over time.

Self-efficacy is considered as a personal resource [37], and thus, it is recognized as an important factor in deciding the level of job engagement [21]. More specifically, when employees believe that they have sufficient physical, emotional, and cognitive support required to accomplish their tasks, they are likely to choose to fully invest their own resources into their work. Conversely, when employees do not believe that they have the sufficient resources to carry out their jobs, they choose not to fully invest themselves into their work, and thus, they are very likely to demonstrate a low level of job engagement. Therefore, an employee with a higher level of self-efficacy is more likely to demonstrate a higher level of job engagement. Therefore, we hypothesize the following:

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Hypothesis 1-3. *Self-efficacy is positively related to job engagement.*

2.2. Job Engagement and Voice Behavior

Kahn [8] defined job engagement as simultaneously employing and expressing the "preferred self" in work behaviors. Here, self-expression is the display of one's own true identity, thoughts, and feelings, and it is closely related to an individual's use of voice behaviors [38]. The concept of job engagement includes working actively, role expansion, and working beyond expectations [39]. In other words, since employees who demonstrate job engagement are able to achieve in-role tasks with less effort [40], they can afford to invest more time and resources in finding new ways to change or improve their professional environment [11]. According to Christian et al. [3], engaged employees are more likely to create favorable social situations that can elicit discretionary behaviors, and in turn, contribute to organizational effectiveness.

Researchers have suggested that job engagement relates to contextual performance (e.g., Rich et al., Christian et al.) [3,9]. Specifically, since engaged employees tend to be more mindful and cognitively vigilant while performing their tasks, they are more likely to be sensitive to the contextual information on the well-being of an organization or its members [3,8,41]. Therefore, they are likely to have opportunities of gaining essential information, and thus, to be involved in such issues. Further, employees' engagement may affect the way they deal with collective issues. In this regard, LePine and Van Dyne [41] suggested that, in favorable conditions, those strongly attached to a group (i.e., engaged employees) may feel that it is desirable or appropriate to be involved in challenging and controversial behaviors. Therefore, employees who demonstrate high job engagement are likely to have an interest in issues so as to improve situations, and participate actively to draw constructive changes. Therefore, we hypothesize the following:

Hypothesis 2. *Job engagement is positively related to voice behavior.*

2.3. Mediating Effect of Job Engagement

Furthermore, this study considers that each antecedent of job engagement leads to voice behavior through job engagement. First, this study suggests the mediating effect of job engagement in the relationship between P–J fit and voice behavior. According to Shamir [42], human beings are by nature self-expressive, therefore, they tend to pursue job roles that enable them to behave in a manner that represents their genuine self-concept. Thus, once individuals believe that their job is meaningful, and thereby, make decisions to fully invest themselves into it, they are likely to seek out ways of expressing themselves through the job. That is, they may be willing to speak up by expressing their ideas and presenting their own suggestions instead of going along with suggestions given by others. As a result, they are more likely to express their own thoughts, ideas, or suggestions with regards to controversial issues.

Second, we suggest that job engagement mediates the relationship between psychological contract fulfillment and voice behavior. If employees feel that their psychological contract is fulfilled by engaging in work, they are more likely to seek a way to repay their organization for fulfilling the psychological contract. Making suggestions or expressing ideas for desirable change in the workplace may be a great way for employees to repay their organization. In addition, given that voice behavior is closely connected to psychological safety [13], employees may feel more comfortable to speak up when they perceive that their relationship with the organization is reliable, predictable, and safe. On the contrary, if employees do not feel psychologically safe, such expressions or suggestions may become burdensome [43], and thus, they are likely to keep a distance from their jobs and express fewer opinions and ideas.

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Third, this study suggests that job engagement mediates the relationship between self-efficacy and voice behavior. Voice behavior may be risky in certain situations, in that it involves challenging the status quo, and thereby it can upset relationships with others [13]. According to Hobfoll [18], individuals who have greater resources are less prone to losing resources and more able to gain resources (refer to the COR theory). Furthermore, employees with self-efficacy, which is a valuable resource [37], tend to take on a new and challenging task and put up with difficulties to fulfill the goals [33,35]. Thus, engaged employees with high levels of self-efficacy may be more willing to be involved in controversial issues and be able to afford enduring the risk that voice behavior may entail, while being less afraid of losing resources. As a result, employees with high self-efficacy are likely to express their ideas or make suggestions without fear of adverse consequences. Therefore, we suggest the following hypothesis:

Hypothesis 3-1. *Job engagement mediates the relationship between P–J fit and voice behavior.*

Hypothesis 3-2. *Job engagement mediates the relationship between psychological contract fulfillment and voice behavior.*

Hypothesis 3-3. Job engagement mediates the relationship between self-efficacy and voice behavior.

2.4. Moderating Effect of Perceived Coworker Support

Perceived coworker support refers to the degree of an employees' perception of consideration and support received from their coworkers [44]. From the viewpoint of the COR theory [18], personal resources are defined as goals, individual characteristics, conditions, or energies that employees think of as valuable [18]. Hobfoll [45] describes two basic principles of how and why employees' behavior is affected by personal resources. First, employees experience stress and anxiety when confronted with the loss of potential or actual resources. Second, employees seek to obtain resources by investing in their current resources. Therefore, employees are motivated to protect, supplement, and invest their resources.

From the viewpoint of the COR theory, demonstrating voice behavior may require sufficient resources as employees should endeavor to speak up and express any ideas that they may have [13]. Thus, depletion of resources may possibly result in the suppression of one's voice. Meanwhile, individuals who demonstrate low levels of job engagement suffer from stress and anxiety due to lack of available resources. In this regard, coworkers' support can be a crucial resource for employees as social support upon which employees can rely when they need it in their job [46]. This means that coworker support may compensate for the resource deficiency from a low level of job engagement, thereby alleviating the negative effect on voice behavior [18]. Accordingly, employees will be able to reinvest the resource received from their coworkers back into voice behavior for the benefit of the organization's members, such as peers. On the contrary, when employees perceive a low level of coworker support, a low level of job engagement would have a more negative effect on employees' voice behavior compared to those employees with higher coworker support, as they have fewer additional valuable resources. Based on the above discussion, we suggest the following hypothesis:

Hypothesis 4. Perceived coworker support moderates the relationship between job engagement and voice behavior, such that the relationship is stronger when perceived coworker support is low rather than high.

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3. Method

3.1. Sample and Procedure

To verify the hypotheses, we conducted a questionnaire survey among employees and their supervisors in public corporations and private enterprises in South Korea. The questionnaires were classified into those targeting employees and those targeting their direct supervisors, and were then delivered to the employees and their supervisors, respectively. To guarantee confidentiality, each questionnaire was enclosed in a postage-paid envelope. After completing the questionnaires, the respondents sent sealed questionnaires by mail directly to the authors. The questionnaires were distributed to 224 pairs, and a total of 213 pairs were finally collected, indicating a response rate of 95%. From these, 20 pairs of questionnaires with a clear tendency of unfaithful responses and another 4 pairs with missing values of controlled variables were excluded, and hence 189 pairs in total were used for the final analysis. Among the employees, 60% were male, and the mean age of the employees was 39.4 years, while among the supervisors, 75% were male, and the mean age of the supervisors was 48.6 years. The majority of the supervisors (70%) and subordinates (65%) held bachelor's degrees.

3.2. Measures

The English language scales were translated into Korean by two bilingual academics to ensure equivalence, following a translation and back-translation procedure recommended by Brislin [47]. Employees' voice behavior was rated by their immediate supervisor, and other variables were rated by employees. Specifically, the employees evaluated their perception of P–J fit, psychological contract fulfillment, self-efficacy, job engagement, and perceived coworker support. The study variables were assessed using multi-item scales with good internal consistency used in previous research. All items were measured on a seven-point Likert-type scale, ranging from strongly disagree (1) to strongly agree (7).

P–*J fit.* P–J fit was assessed with a six-item scale from Cable and DeRue [48]. A sample item stated, "The match between the demands of my job and my personal skills is very good."

Psychological contract fulfillment. To assess employees' psychological contract fulfillment, the study used a six-item scale from Robinson and Morrison [49]. A sample item read "I feel that my organization has come through in fulfilling the promises made to me when I was hired."

Self-efficacy. Self-efficacy was measured with an eight-item scale from Chen et al. [31]. A sample item stated, "I am confident that I can perform effectively on many different tasks."

Job engagement. Job engagement was assessed with seventeen items drawn from Schaufeli et al. [50]. A sample item was, "At my job, I feel strong and vigorous."

Perceived coworker support. To measure employees' perception of their coworker support, the study used a seven-item scale drawn from Tsui et al. [44]. A sample item read "My coworker is considerate of my feelings."

Voice behavior. Voice behavior was assessed using a six-item scale drawn from Van Dyne and LePine [12]. A sample item stated, "This employee speaks up and encourages others in the group to get involved in issues that affect the group."

Control variables. To prevent influencing the results, employees' gender and education were controlled. In addition, the types of employees' job and employment were included in the analyses to control for possible exogenous effects. However, regardless of these control variables, all results of the analyses were stable.

4. Results

In order to verify the construct validity of the hypothesized variables, we conducted a confirmatory factor analysis. The result of the analysis showed that the hypothesized model (i.e. six-factor model) fit well to the data: χ 2(215) = 436.18, p < 0.01, CFI = 0.93, TLI = 0.92, and RMSEA = 0.07. In addition, the hypothesized model was compared with alternative models. As presented in Table 1, the results

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suggested that the hypothesized model is superior to all other alternative models. For instance, the hypothesized model fit better than five-factor models in which two of the three antecedents loaded on the same factor (χ 2(220) =688.16, p < 0.01, CFI = 0.85, TLI = 0.83, RMSEA = 0.11). Therefore, the results indicate that the six constructs are distinct from each other.

Table 1. Comparison of Measurement Models.

892.88

1029.31

1310.95

1754.97

Model	Factors	χ2	df	CFI	TLI	RMSEA	
Hypothesized Model	Six-Factor model: PJF, PCF, SEFF, JE, PCS, VB	436.18	215	0.93	0.92	0.07	
Model 1	Five-Factor model: (PJF+PCF),	688.16	220	0.85	0.83	0.11	

SEFF, JE, PCS, VB Four-Factor model:

(PJF+PCF+SEFF), JE, PCS, VB Three-Factor model:

(PJF+PCF+SEFF+JE), PCS, VB Two-Factor model:

(PJF+PCF+SEFF+JE+PCS),VB One-Factor model:

(PJF+PCF+SEFF+JE+PCS+VB)

Model 2

Model 3

Model 4

Model 5

224

227

229

230

0.79

0.74

0.66

0.51

0.76

0.72

0.62

0.47

0.13

0.14

0.16

0.19

 $\triangle \chi 2$

251.98

456.70 **

593.13 **

874.77 **

1318.79

The changes of Chi-square ($\Delta \chi 2$) were against the six-factor model. PJF=P-J fit; PCF=psychological contract fulfillment; SEFF=self-efficacy; JE=job engagement; PCS=perceived coworker support; VB=voice behavior; CFI=Comparative Fit Index; TLI=Tucker Lewis Index; RMSEA=Root Mean Square of Error of Approximation. p < 0.01(two-tailed)

The means, standard deviations, reliabilities, and correlations among the main study variables are presented in Table 2. All scales had very good internal consistency (alpha values above 0.90).

	Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10
1.	Gender	1.40	0.49										
2.	Education	2.80	0.81	0.00									
3.	Job Type	2.04	1.59	-0.11	-0.09								
4.	Employment Type	1.14	0.65	0.06	0.07	-0.09							
5.	Person-Job Fit	4.53	1.08	-0.09	-0.21 **	0.01	0.07	(0.91)					
6.	Psychological Contract Fulfillment	4.57	1.13	-0.07	-0.05	-0.02	-0.06	0.40 ***	(0.90)				
7.	Self-efficacy	5.16	0.87	-0.06	-0.01	0.00	0.15 *	0.54 ***	0.13	(0.93)			
8.	Job Engagement	4.52	0.85	-0.08	-0.12	0.01	0.10	0.70 ***	0.24 ***	0.67 ***	(0.93)		
9. F	Perceived Coworker Support	5.38	0.94	0.08	-0.04	0.04	0.13	0.28 ***	0.30 ***	0.24 **	0.30 ***	(0.91)	
10.	Voice Behavior	4.76	1.20	-0.10	0.07	-0.12	-0.02	0.14	0.00	0.17 *	0.25 ***	0.14	(0.94)

Table 2. Descriptive Statistics.

Note. N = 189. Reliabilities are noted in parentheses on the diagonal. p < 0.05; *** p < 0.01; **** p < 0.001 (two-tailed)

Hypothesis 1-1 proposed that P-J fit is positively related to job engagement. As illustrated in Model 2 of Table 3, P–J fit was indeed positively associated with employees' job engagement ($\beta = 0.70$, p < 0.001). Therefore, Hypothesis 1-1 was supported. In addition, Hypothesis 1-2 suggested that psychological contract fulfillment is positively associated with job engagement. The results of Model 2 in Table 4 show that psychological contract fulfillment is significantly related to job engagement $(\beta = 0.24, p < 0.01)$, supporting Hypothesis 1-2. In the same way, we tested Hypothesis 1-3, which suggested that self-efficacy is positively related to employees' job engagement. As illustrated in Model 2 of Table 5, for job engagement, the coefficient associated with self-efficacy was statistically significant (β = 0.66, p < 0.001). Therefore, Hypothesis 1-3 was also supported.

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Table 3. Results of the Simple Mediation Test of Person–Job Fit *.

		liator agement		Subordi Void		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Control Variables						
Gender	-0.09	-0.02	-0.11	-0.09	-0.08	-0.09
Education	-0.13	0.02	0.06	0.09	0.09	0.09
Job Type	0.00	0.00	-0.13	-0.13	-0.13	-0.13
Employment Type	0.12	0.06	-0.02	-0.04	-0.06	-0.06
Main Effects						
Person-Job Fit		0.70 ***		0.16 *		-0.05
Mediator						
Job Engagement					0.26 ***	0.29 **
Overall F	1.68 *	35.13 ***	1.44	2.07	3.91 **	3.28 **
Adjusted R ²	0.01	0.48	0.01	0.03	0.07	0.07
Change in F		163.02 ***		4.51 *	13.40 ***	8.86 **
Change in R ²		0.46		0.02	0.07	0.04
	No	rmal theory	tests for ind	irect effect		
		•	Value	SE	z	p
So	bel		0.23	0.08	2.890	0.004
	В	ootstrap resu	ılts for indi	ect effect		
		•	Value	Boot SE	LL 95% CI	UL 95% C
Ef	fect		0.23	0.08	0.074	0.397

Note. N = 189. * Values are standardized regression coefficients. * p < 0.05; ** p < 0.01; *** p < 0.001 (two-tailed). The size of bootstrap sample = 10,000. LL = lower limit; CI = confidence interval; UL = upper limit.

 Table 4. Results of the Simple Mediation Test of Psychological Contract Fulfillment *.

		liator agement	Su	bordinate's Ou Voice Behavi	
	Model 1	Model 2	Model 3	Model 4	Model 5
Control Variables					
Gender	-0.09	-0.07	-0.11	-0.11	-0.09
Education	-0.13	-0.12	0.06	0.06	0.09
Job Type	0.00	0.01	-0.13	-0.13	-0.13
Employment Type	0.12	0.13	-0.02	-0.03	-0.06
Main Effects					
Psychological		0.24 **		-0.01	-0.07
Contract Fulfillment		0.24		-0.01	-0.07
Mediator					
Job Engagement					0.28 ***
Overall F	1.68	3.62 **	1.44	1.14	3.42 **
Adjusted R ²	0.01	0.07	0.01	0.00	0.07
Change in F		11.01 **		0.01	14.39 ***
Change in R ²		0.05		0.00	0.07
	Normal t	heory tests f	or indirect e	ffect	
		Value	SE	z	p
Sobel		0.07	0.03	2.450	0.014
	Bootstra	p results for	r indirect eff	ect	
		Value	Boot SE	LL 95% CI	UL 95% CI
Effect		0.07	0.03	0.023	0.142

Note. N = 189. *Values are standardized regression coefficients. *p < 0.05; **p < 0.01; ***p < 0.001 (two-tailed). The size of bootstrap sample = 10,000. LL = lower limit; CI = confidence interval; UL = upper limit.

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Table 5. Results of the Simple Mediation Test of Self-Efficacy *.

		liator agement	Su	bordinate's Ou Voice Behavi	
	Model 1	Model 2	Model 3	Model 4	Model 5
Control Variables					
Gender	-0.09	-0.04	-0.11	-0.09	-0.08
Education	-0.13	-0.11	0.06	0.06	0.09
Job Type	0.00	-0.01	-0.13	-0.13	-0.13
Employment Type	0.12	0.01	-0.02	-0.05	-0.06
Main Effects					
Self-efficacy		0.66 ***		0.18 *	0.01
Mediator					
Job Engagement					0.26 **
Overall F	1.68	31.21 ***	1.44	2.36 *	3.24 **
Adjusted R ²	0.01	0.45	0.01	0.03	0.07
Change in F		144.08 ***		5.88 *	7.25 **
Change in R ²		0.42		0.03	0.04
	Normal t	heory tests f	or indirect e	ffect	
		Value	SE	Z	p
Sobel		0.23	0.09	2.618	0.009
	Bootstra	p results for	r indirect eff	ect	
		Value	Boot SE	LL 95% CI	UL 95% C
Effect		0.23	0.09	0.070	0.429

Note. N = 189. *Values are standardized regression coefficients. *p < 0.05; **p < 0.01; ***p < 0.001 (two-tailed). The size of bootstrap sample = 10,000. LL = lower limit; CI = confidence interval; UL = upper limit.

Hypothesis 2 proposed that job engagement has a positive relationship with employees' voice behavior. The results, as illustrated in Model 5 of Table 3, indicated that job engagement has a positive effect on employees' voice behavior (β = 0.26, p < 0.001). Therefore, Hypothesis 2 was supported.

Hypotheses 3-1, 3-2, and 3-3 posited that job engagement mediates the relationships between the antecedents of this study (i.e., P–J fit, psychological contract fulfillment, and self-efficacy) and voice behavior. To test our hypotheses regarding the mediating effect of job engagement, Baron and Kenny's procedure [51] was adopted. Moreover, following the approach suggested by Hayes and Preacher [52], both the Sobel test and bootstrapping were used to assess the significance of the indirect effects.

Specifically, Hypothesis 3-1 proposed the mediating role of job engagement in the relationship between P–J fit and voice behavior. P–J fit was positively associated with voice behavior ($\beta = 0.16$, p < 0.05; Model 4 of Table 3) and was significantly related to job engagement ($\beta = 0.70$, p < 0.001; Model 2 of Table 3), thus, the first and second prerequisites for mediation were fulfilled. To test the third condition for mediation, voice behavior was regressed on job engagement, controlling for P-J fit. As shown in Model 6 of Table 3, the beta coefficient for job engagement was statistically significant ($\beta = 0.29$, p < 0.01); however, the effect of P–J fit was no longer significant ($\beta = -0.05$, ns). Thus, the mediation analysis indicates that the effect of P–J fit on employees' voice behavior is fully mediated by job engagement. In addition, the lower part of Table 3 indicates the results of the Sobel test and bootstrapping. The formal two-tailed significance test (assuming that a distribution is normal) presented the significance of the indirect effect (Sobel z = 2.890, p = 0.004), and the result of bootstrapping reaffirmed the Sobel test. To be specific, we calculated a 95% bias-corrected confidence interval (CI) for indirect effects using 10,000 bootstrapped samples. Shrout and Bolger [53] explained that if the CI is not zero, the researcher can have confidence that the indirect effect is different from zero. In this study, the CI was between 0.074 and 0.397, excluding zero, which indicates the statistical significance of the indirect effect in this research model. Therefore, Hypothesis 3-1 was supported.

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Hypothesis 3-2 posited that job engagement mediates the relationship between psychological contract fulfillment and voice behavior. Psychological contract fulfillment was not significantly associated with voice behavior ($\beta = -0.01$, ns; Model 4 of Table 4); thus, the first prerequisite for mediation was not fulfilled. However, psychological contract fulfillment had a significant relationship with job engagement ($\beta = 0.24$, p < 0.01; Model 2 of Table 4), and job engagement had a significant relationship with voice behavior after including psychological contract fulfillment ($\beta = 0.28$, p < 0.001; Model 5 of Table 4). Thus, to confirm the indirect effect more accurately, we examined the results of the Sobel test and bootstrapping. As illustrated in Table 4, the indirect effect was statistically significant in our model (Sobel z = 2.450, p = 0.014; 95% bootstrap CI = 0.023 to 0.142), providing partial support for Hypothesis 3-2.

In the same manner, we tested Hypothesis 3-3, which predicted the mediating role of job engagement in the relationship between self-efficacy and voice behavior. As reported in Table 5, self-efficacy was significantly related to voice behavior (β = 0.18, p < 0.05; Model 4 of Table 5) and positively associated with job engagement (β = 0.66, p < 0.001; Model 2 of Table 5). Additionally, job engagement had a significant relationship with voice behavior, controlling for self-efficacy (β = 0.26, p < 0.01; Model 5 of Table 5); however, the effect of self-efficacy was no longer significant (β = 0.01, ns). These results suggested that job engagement fully mediated the relationship between self-efficacy and employees' voice behavior. Moreover, the results of the Sobel test and bootstrapping confirmed the indirect effect (Sobel z = 2.618, p= 0.009; 95% bootstrap CI = 0.070 to 0.429), providing support for Hypothesis 3-3.

Hypothesis 4 predicted the moderating effect of perceived coworker support on the relationship between job engagement and voice behavior. The results of Model 5 in Table 6 present that the coefficient for the interaction term, including job engagement and perceived coworker support, is negative and statistically significant ($\beta = -0.17$, p < 0.05). To further investigate this interaction effect, we plotted the results following Aiken and West's procedure [54]. As presented in Figure 2, the positive relationship between job engagement and voice behavior is stronger when perceived coworker support is low rather than high. Thus, these results supported Hypothesis 4.

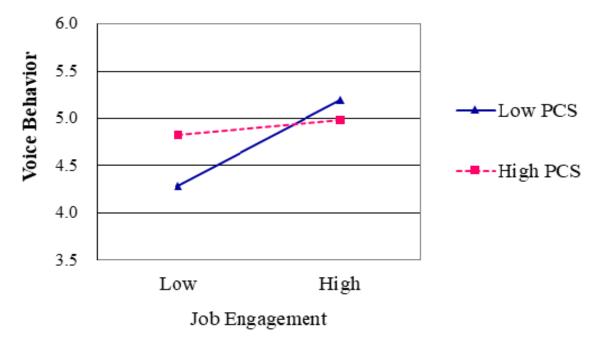


Figure 2. Moderating effect of perceived coworker support (PCS) in the relationship between job engagement and voice behavior.

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Table 6. Hierarchical Regression Results for the Moderating Effect of Perceived Coworker Support *.

	Subordinate's Outcome Voice Behavior							
	Model 1	Model 2	Model 3	Model 4	Model 5			
Control Variables								
Gender	-0.11	-0.09	-0.09	-0.10	-0.09			
Education	0.06	0.08	0.09	0.09	0.08			
Job Type	-0.13	-0.13	-0.13	-0.14	-0.16*			
Employment Type	-0.02	-0.06	-0.06	-0.08	-0.07			
Main Effects								
Person–Job Fit		0.12	-0.01	-0.02	-0.01			
Psychological Contract Fulfillment		-0.07	-0.07	-0.10	-0.09			
Self-Efficacy		0.12	0.01	0.00	0.02			
Main Effects								
Job Engagement (JE)			0.29 *	0.26 *	0.24 *			
Moderator								
Perceived Coworker Support (PCS)				0.13	0.09			
Interaction Effects								
$JE^a \times PCS^b$					-0.17 *			
Overall F	1.44	1.93	2.54 *	2.58 **	2.91 **			
Adjusted R ²	0.01	0.03	0.06	0.07	0.09			
Change in F		2.54	6.41 *	2.68	5.29 *			
Change in R ²		0.04	0.03	0.01	0.03			

Note. N = 189. * Values are standardized regression coefficients. * p < 0.05; ** p < 0.01; *** p < 0.001 (two-tailed) JEa = Job Engagement, PCSb = Perceived Coworker Support.

5. Discussion

Based on Kahn's [8] study on job engagement, this study aimed to extend the existing literature by incorporating the antecedents of job engagement and assessing the outcome, as well as verifying how these antecedents can affect job engagement and influence the outcome. Specifically, this study found positive relationships of job engagement with P–J fit, psychological contract fulfillment, and self-efficacy as important antecedents related to psychological meaningfulness, psychological safety, and psychological availability, which were suggested by Kahn [8] as factors that can have an effect on job engagement. In addition, the results of this study showed that job engagement has a positive relationship with employees' voice behavior, and fully mediates the relationships between the antecedents and voice behavior. Furthermore, our findings suggest that the relationship between job engagement and voice behavior is contingent on perceived coworker support. The implications of our findings as well as the limitations of our study are discussed below.

5.1. Theoretical and Practical Implications

Our research has several theoretical implications for the study of job engagement and voice behavior in organizations. First, this study proves that the congruence between job and personal characteristics presents the process of allowing employees to experience psychological meaningfulness and demonstrate job engagement. Although several researchers such as Christian et al. [11] have mentioned the need to conduct further studies on person–environment fit (P–E Fit) as an antecedent, it is difficult to find an empirical study that argues for the concept of P–J fit in relation to psychological studies, and that proves its relationship with job engagement within the scope of exploration as this study. As a result, this study contributes to expanding the basis of studies on antecedents by demonstrating P–J fit as a major antecedent that elicits job engagement.

Second, the findings of this study demonstrate that employees' perception of psychological contract fulfillment has a significantly positive relationship with their job engagement. Previous studies related to Kahn's psychological safety [8] have focused on social relations and support concepts

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(i.e., the relationship between coworkers and supervisors, the recognition of organizational support, Leader–Member Exchange) [4,9,55]. However, the meaningful results of the relationship between psychological contract fulfillment and job engagement demonstrate that the satisfaction of employees' expectations is also an important factor in job engagement.

Third, this study provided evidence that self-efficacy can increase employees' levels of engagement in their work. In relation to Kahn's [8] psychological availability, Rich et al. [9] analyzed the relationship with self-efficacy by using core self-evaluations (CSE) as an antecedent, and Christian et al. [3] used faithfulness and positive affect (PA). However, it is difficult to determine whether the relationship between self-efficacy and job engagement was established. Therefore, the results of this study will become major empirical evidence that adds to the existing research.

Fourth, this study integrated job engagement, which is a separate major research trend, with employees' voice behavior. So far, there is limited research on the impact of job engagement on voice behavior [15]. However, exploring the relationship between job engagement and voice behavior is important in that it can determine how engaged employees should act to facilitate constructive changes in favor of the organization and its members.

Fifth, our findings add to the literature on the mechanism of job engagement by examining how the antecedents lead to voice behavior via job engagement. Once employees feel that their psychological conditions are being fulfilled through P–J fit, psychological contract fulfilment, and self-efficacy, they are likely to fully invest themselves in their work. Our findings emphasize that a distinctive feature of job engagement is that it may possibly serve as a facilitator of the process. That is, since engaged employees may tend to be sensitive and vigilant, they are likely to gain more valuable information and willingly engage in issues related to the organization's well-being [41]. As a result, they are likely to demonstrate a higher level of voice behavior.

Sixth, by verifying the moderating role between job engagement and voice behavior, our findings can reaffirm the importance of perceived coworker support. The research results indicate that employees who demonstrate a low level of job engagement can restore the perceived resource deficiencies resulting from a low level of job engagement when perceived coworker support is high, and they can reinvest the resources received from coworkers' support by enacting voice behavior. Therefore, this study suggests the importance of an environment that can encourage employees who demonstrate job engagement to increase their contribution to the organization.

Furthermore, the results of this study provide several practical implications. First, this study indicates that if organizations want to encourage their employees' voice behavior, they should be aware of the importance of job engagement and invest effort to promote it. Unlike other extra-role behaviors, in certain situations voice behavior can often be risky [14]. Thus, employees may be reluctant to be involved in voice behavior unless they demonstrate sufficient job engagement. Specifically, employees may disengage and keep a distance from their work if they do not perceive support in terms of P–J fit, psychological contract fulfillment, and self-efficacy. Given that individuals may adjust their level of job engagement to varying degrees [56], organizations should pay attention to the degree to which employees find their work meaningful, presume that the relationship with their organization is reciprocal, and consider themselves as efficacious.

Second, the results of this study also indicate the specific ways through which organizations retain engaged workforce. Christian et al. [3] pointed out two ways to achieve improvement in terms of job engagement in the workplace: selecting individuals who are predisposed to job engagement, and designing tasks that can give employees a sense of significance and diversity. This study shows that an organization should select applicants with a high level of P–J fit and self-efficacy, and allocate employees to appropriate positions considering their desires and ability. Furthermore, since employees' perception of psychological contract fulfillment plays an important role in promoting job engagement and voice behaviors, an organization should present a realistic job preview so as to hire applicants with a realistic understanding, and ensure that the employees feel that their expectations are not being betrayed after joining the organization. Implementing a consistent policy or sending a consistent

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message is an important part of organizational management guidelines as it helps employees maintain appropriate expectations of their organization.

Third, the results also provide a meaningful implication for organizations to ensure that employees speak up to promote constructive changes even when their engagement in a job is not high enough. As our findings suggest, because of the importance of coworkers' support in increasing employees' voice behavior, organizations and managers must encourage coworkers to support each other by designing and providing a variety of programs to nurture a sense of solidarity and trust.

5.2. Limitations and Future Directions

Despite the above implications, this study has several limitations as follows. First, although this study isolated the sources of responses by having the supervisor evaluate a subordinate's voice behavior, there still may be errors caused by the common method bias. In fact, errors caused by the same source of the response can be relatively reduced by adding verification of the moderating effect [57]. Nevertheless, to overcome these limitations, this study used Harman's single factor test method. The results of the exploratory factor analysis indicate that the first factor explains only 16.63% of the variance, suggesting that common method variance was not a concern in this study. Second, it is necessary to revisit the issue that arises from a cross-sectional study design. Similar to many previous studies that have applied the same design because of realistic constraints, the results of this study cannot confirm the casual relationship between job engagement and voice behavior. In future studies, the causal relationship between such variables could be more clarified by the use of a longitudinal study design. Third, the limited possibility of generalization may also be a limitation of this study. The subjects of this study consist mainly of office workers within public corporations and large enterprises in South Korea. However, it would be possible to obtain more meaningful results by conducting follow-up studies that target small-sized companies and various types of organizations in different countries.

6. Conclusions

The issue of sustainability has been a vital goal for organizations striving to survive while struggling to adapt to the ever-changing business environment. Employees' job engagement is of great importance to organizations in their pursuit of sustainable development [58,59]. Job engagement can not only facilitate the building of a solid foundation for sustainability by increasing organizational effectiveness, but can also help employees thrive in the workplace by improving their well-being. Therefore, we believe that an organization can have sustainable competitive advantage by retaining engaged employees. In this regard, this study endeavored to investigate the antecedents and consequences of job engagement. As our study indicates, P–J Fit, psychological contract fulfillment, and self-efficacy can lead to job engagement. The results of this study also support the fact that employees' job engagement can lead to voice behavior, which can facilitate positive contributions to an organization in the long term. In addition, the results reveal that when employees suffer from a low level of job engagement, coworker support can serve as a complementary role that enables the maintenance of a high level of voice behavior. Noting that job engagement can serve as a critical tool for promoting the ongoing success of an organization [2], we believe our findings are significant and contribute to the literature on sustainability.

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References

1. Kim, W.; Khan, G.F.; Wood, J.; Mahmood, M.T. Employee engagement for sustainable organizations: Keyword analysis using social network analysis and burst detection approach. *Sustainability* **2016**, *8*, 631. [CrossRef]

- 2. Alafeshat, R.; Tanova, C. Servant leadership style and high-performance work system practices: Pathway to a sustainable jordanian airline industry. *Sustainability* **2019**, *11*, 6191. [CrossRef]
- 3. Christian, M.S.; Garza, A.S.; Slaughter, J.E. Work engagement: A quantitative review and test of its relations with task and contextual performance. *Pers. Psychol.* **2011**, *64*, 89–136. [CrossRef]
- 4. May, D.R.; Gilson, R.L.; Harter, L.M. The psychological conditions of meaningfulness, safety and availability and the engagement of the human spirit at work. *J. Occup. Organ. Psychol.* **2004**, *77*, 11–37. [CrossRef]
- 5. Schaufeli, W.B.; Taris, T.W.; Van Rhenen, W. Workaholism, burnout, and work engagement: Three of a kind or three different kinds of employee well-being? *Appl. Psychol.* **2008**, *57*, 173–203. [CrossRef]
- 6. Caesens, G.; Stinglhamber, F.; Ohana, M. Perceived organizational support and well-being: A weekly study. *J. Manag. Psychol.* **2016**, *31*, 1214–1230. [CrossRef]
- 7. Vila-Vázquez, G.; Castro-Casal, C.; Álvarez-Pérez, D.; Río-Araújo, D. Promoting the sustainability of organizations: Contribution of transformational leadership to job engagement. *Sustainability* **2018**, *10*, 4109.
- 8. Kahn, W.A. Psychological conditions of personal engagement and disengagement at work. *Acad. Manag. J.* **1990**, 33, 692–724.
- 9. Rich, B.L.; Lepine, J.A.; Crawford, E.R. Job engagement: Antecedents and effects on job performance 2010. *Acad. Manag. J.* **2010**, *53*, 617–635. [CrossRef]
- 10. Salanova, M.; Schaufeli, W.B. A cross-national study of work engagement as a mediator between job resources and proactive behavior. *Int. J. Hum. Resour. Manag.* **2008**, *19*, 116–131. [CrossRef]
- 11. Alfes, K.; Truss, C.; Soane, E.C.; Rees, C.; Gatenby, M. The relationship between line manager behavior, perceived HRM practices, and individual performance: Examining the mediating role of engagement. *Hum. Resour. Manag.* **2013**, *52*, 839–859. [CrossRef]
- 12. Van Dyne, L.; LePine, J.A. Helping and voice extra-role behaviors: Evidence of construct and predictive validity. *Acad. Manag. J.* **1998**, *41*, 108–119.
- 13. LePine, J.A.; Van Dyne, L. Voice and cooperative behavior as contrasting forms of contextual performance: Evidence of differential relationships with big five personality characteristics and cognitive ability. *J. Appl. Psychol.* **2001**, *86*, 326–336. [CrossRef] [PubMed]
- 14. Detert, J.R.; Burris, E.R. Leadership behavior and employee voice: Is the door really open? *Acad. Manag. J.* **2007**, *50*, 869–884. [CrossRef]
- 15. Latif, N.Z.A.; Arif, L.S.M. Employee engagement and employee voice. *Development* **2018**, 7, 508–515. [CrossRef]
- 16. Chiaburu, D.S.; Harrison, D.A. Do peers make the place? Conceptual synthesis and meta-analysis of coworker effects on perceptions, attitudes, OCBs, and performance. *J. Appl. Psychol.* **2008**, 93, 1082–1103. [CrossRef]
- 17. Lyu, X. Effect of organizational justice on work engagement with psychological safety as a mediator: Evidence from China. *Soc. Behav. Personal. Int. J.* **2016**, *44*, 1359–1370. [CrossRef]
- 18. Hobfoll, S.E. Conservation of resources: A new attempt at conceptualizing stress. *Am. Psychol.* **1989**, 44, 513–524. [CrossRef]
- Kristof-Brown, A.L.; Zimmerman, R.D.; Johnson, E.C. Consequences of individuals' fit at work: A meta-analysis of person–job, person–organization, person–group, and person–supervisor fit. *Pers. Psychol.* 2005, 58, 281–342. [CrossRef]
- 20. Chen, C.Y.; Yen, C.H.; Tsai, F.C. Job crafting and job engagement: The mediating role of person-job fit. *Int. J. Hosp. Manag.* **2014**, *37*, 21–28. [CrossRef]
- 21. Maslach, C.; Leiter, M.P. Early predictors of job burnout and engagement. *J. Appl. Psychol.* **2008**, *93*, 498–512. [CrossRef] [PubMed]
- 22. Shuck, B.; Reio Jr, T.G.; Rocco, T.S. Employee engagement: An examination of antecedent and outcome variables. *Hum. Resour. Dev. Int.* **2011**, *14*, 427–445. [CrossRef]
- 23. Bui, H.T.; Zeng, Y.; Higgs, M. The role of person-job fit in the relationship between transformational leadership and job engagement. *J. Manag. Psychol.* **2017**, *32*, 373–386. [CrossRef]

Sustainability **2020**, *12*, 7536

24. Cai, D.; Cai, Y.; Sun, Y.; Ma, J. Linking empowering leadership and employee work engagement: The effects of person-job fit, person-group fit, and proactive personality. *Front. Psychol.* **2018**, *9*, 1304. [CrossRef]

- 25. Rousseau, D. *Psychological contracts in organizations: Understanding written and unwritten agreements;* Sage Publications: Thousand Oaks, CA, USA, 1995.
- 26. Soares, M.E.; Mosquera, P. Fostering work engagement: The role of the psychological contract. *J. Bus. Res.* **2019**, *101*, 469–476. [CrossRef]
- 27. Blau, P.M. Social exchange. Int. Encycl. Soc. Sci. 1968, 7, 452–457.
- 28. Cropanzano, R.; Mitchell, M.S. Social exchange theory: An interdisciplinary review. *J. Manag.* **2005**, *31*, 874–900. [CrossRef]
- 29. Rayton, B.A.; Yalabik, Z.Y. Work engagement, psychological contract breach and job satisfaction. *Int. J. Hum. Resour. Manag.* **2014**, 25, 2382–2400. [CrossRef]
- 30. Bal, P.M.; De Cooman, R.; Mol, S.T. Dynamics of psychological contracts with work engagement and turnover intention: The influence of organizational tenure. *Eur. J. Work Organ. Psychol.* **2013**, 22, 107–122. [CrossRef]
- 31. Chen, G.; Gully, S.M.; Eden, D. Validation of a new general self-efficacy scale. *Organ. Res. Methods.* **2001**, *4*, 62–83. [CrossRef]
- 32. Stajkovic, A.D.; Luthans, F. Self-efficacy and work-related performance: A meta-analysis. *Psychol. Bull.* **1998**, 124, 240–261. [CrossRef]
- 33. Bandura, A. Social cognitive theory of self-regulation. *Organ. Behav. Hum. Decis. Process.* **1991**, *50*, 248–287. [CrossRef]
- 34. Llorens, S.; Schaufeli, W.; Bakker, A.; Salanova, M. Does a positive gain spiral of resources, efficacy beliefs and engagement exist? *Comput. Hum. Behav.* **2007**, 23, 825–841. [CrossRef]
- 35. Simbula, S.; Guglielmi, D.; Schaufeli, W.B. A three-wave study of job resources, self-efficacy, and work engagement among Italian schoolteachers. *Eur. J. Work Organ. Psychol.* **2011**, 20, 285–304. [CrossRef]
- 36. Consiglio, C.; Borgogni, L.; Di Tecco, C.; Schaufeli, W.B. What makes employees engaged with their work? The role of self-efficacy and employee's perceptions of social context over time. *Career Dev. Int.* **2016**, 21, 125–143. [CrossRef]
- 37. Hobfoll, S.E. Conservation of resources and disaster in cultural context: The caravans and passageways for resources. *Psychiatry Interpers. Biol. Process.* **2012**, 75, 227–232. [CrossRef]
- 38. Hirschman, A.O. *Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States*; Harvard University Press: Cambridge, MA, USA, 1970.
- 39. Macey, W.H.; Schneider, B.; Barbera, K.M.; Young, S.A. *Employee Engagement: Tools for Analysis, Practice, and Competitive Advantage*; John Wiley & Sons: Malden, MA, USA, 2009.
- 40. Hockey, G.R.J. Work environments and performance. In *Work and Organizational Psychology a European Perspective*; Chmiel, N., Ed.; Basil Blackwell: Oxford, UK, 2000; pp. 206–230.
- 41. LePine, J.A.; Van Dyne, L. Predicting voice behavior in work groups. *J. Appl. Psychol.* **1998**, *83*, 853–868. [CrossRef]
- 42. Shamir, B. Meaning, self, and motivation in organizations. Organ. Stud. 1991, 12, 405–424. [CrossRef]
- 43. Zhang, Y.; Fang, Y.; Wei, K.K.; Chen, H. Exploring the role of psychological safety in promoting the intention to continue sharing knowledge in virtual communities. *Int. J. Inf. Manag.* **2010**, *30*, 425–436. [CrossRef]
- 44. Tsui, A.S.; Pearce, J.L.; Porter, L.W.; Tripoli, A.M. Alternative approaches to the employee-organization relationship: Does investment in employees pay off? *Acad. Manag. J.* **1997**, 40, 1089–1121. [CrossRef]
- 45. Hobfoll, S.E. *The Ecology of Stress*; Hemisphere: Washington, DC, USA, 1988.
- 46. Turner, N.; Chmiel, N.; Hershcovis, M.S.; Walls, M. Life on the line: Job demands, perceived co-worker support for safety, and hazardous work events. *J. Occup. Health Psychol.* **2010**, *15*, 482–493. [CrossRef] [PubMed]
- 47. Brislin, R.W. Translation and content analysis of oral and written materials. In *Handbook of Cross-Cultural Psychology*; Triandis, H.C., Berry, J.W., Eds.; Allyn and Bacon: Boston, MA, USA, 1980; Volume 2, pp. 389–444.
- 48. Cable, D.M.; DeRue, D.S. The convergent and discriminant validity of subjective fit perceptions. *J. Appl. Psychol.* **2002**, *87*, 875–884. [CrossRef] [PubMed]
- 49. Robinson, S.L.; Morrison, E.W. The development of psychological contract breach and violation: A longitudinal study. *J. Organ. Behav.* **2000**, *21*, 525–546. [CrossRef]
- 50. Schaufeli, W.B.; Bakker, A.B.; Salanova, M. The measurement of work engagement with a short questionnaire: A cross-national study. *Educ. Psychol. Meas.* **2006**, *66*, 701–716. [CrossRef]

Sustainability **2020**, *12*, 7536 17 of 17

51. Baron, R.M.; Kenny, D.A. The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *J. Personal. Soc. Psychol.* **1986**, *51*, 1173–1182. [CrossRef]

- 52. Hayes, A.F.; Preacher, K.J. Quantifying and testing indirect effects in simple mediation models when the constituent paths are nonlinear. *Multivar. Behav. Res.* **2010**, *45*, 627–660. [CrossRef]
- 53. Shrout, P.E.; Bolger, N. Mediation in experimental and nonexperimental studies: New procedures and recommendations. *Psychol. Methods* **2002**, *7*, 422–445. [CrossRef]
- 54. Aiken, L.S.; West, S.G. *Multiple regression: Testing and interpreting interactions*; Sage: Thousand Oaks, CA, USA, 1991.
- 55. Breevaart, K.; Bakker, A.B.; Demerouti, E.; van den Heuvel, M. Leader-member exchange, work engagement, and job performance. *J. Manag. Psychol.* **2015**, *30*, 754–770. [CrossRef]
- 56. Saks, A.M. Antecedents and consequences of employee engagement. *J. Manag. Psychol.* **2006**, 21, 600–619. [CrossRef]
- 57. Evans, M.G. A Monte Carlo study of the effects of correlated method variance in moderated multiple regression analysis. *Organ. Behav. Hum. Decis. Process.* **1985**, *36*, 305–323. [CrossRef]
- 58. Kim, W.; Park, J. Examining structural relationships between work engagement, organizational.9 procedural justice, knowledge sharing, and innovative work behavior for sustainable organizations. *Sustainability* **2017**, 9, 205. [CrossRef]
- 59. Knight, C.; Patterson, M.; Dawson, J. Building work engagement: A systematic review and meta-analysis investigating the effectiveness of work engagement interventions. *J. Organ. Behav.* **2017**, *38*, 792–812. [CrossRef] [PubMed]



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