

RESEARCH ARTICLE

# Burnout and Work Engagement Among Dispatch Workers in Courier Service Organizations

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**Abstract:** The rapid growth of the global digital economy is increasing the workload of courier dispatchers. This study measures the structural relationships between the constructs of the job demand and resources (JD-R) model and corporate volunteerism and the constructs' dimensions to reduce burnout and work engagement issues. Three hundred and fifty completed questionnaires were collected among dispatchers who have at least one year of courier working experience in the present and previous company. The result shows the job demand construct and only one of the construct's dimensions—physical demands—has influenced the dispatchers' burnout. The job resources construct and only one of the construct's dimensions—social support—has directly influenced work engagement. All the job resources construct's dimensions—decision latitude and social support—and the construct itself have significantly moderated the effects of job demands construct and its dimensions on burnout. Therefore, considerable decision latitude needs to be given to workers, and team-work spirit between workers needs to be nurtured to combat the negative effect of job demands on burnout. The result also implies that the workers' involvement in corporate volunteering activities needs to be boosted. This study fills the literature gap by enriching the JD-R model with corporate volunteerism and focus on blue-collar workers.

**Keywords:** burnout, work engagement, job demands, job resources, corporate volunteerism

The digital economy has contributed 18.2% to the Gross Domestic Product of Malaysia and is expected to increase to more than 20% in the future (Wong, 2018). Companies are using e-commerce platforms, such as Lazada and Shopee, to market their products because it is more cost-effective to deliver a small quantity of products to customers, especially those living in remote areas. As a result of the rapid growth of the global digital economy, higher job demands—in terms of physical demands (such as heavy workloads) and psychological demands (such as the need to work very

hard)—are given to courier dispatch workers (Izzah et al., 2016). Workers thereby begin to experience burnout as a result of exhaustion, cynicism, and decreased work efficacy (Yan & Xie, 2016).

The worker's delivery tasks cannot be easily replaced by an automation machine or computer system. For example, the worker needs to find the receiver and the delivery destination because the mailing address is incomplete or incorrect. On-time delivery is the key success of courier companies. Therefore, high turnover among dispatch workers

the following research question arises: how does the construct of job demands and its dimensions influence the dispatch worker's burnout?

The effects of job resources on work engagement have been widely surveyed in literature. Work engagement increases when workers are energetic, mentally strong, and happy in their work (Oshio et al., 2018). The construct of job resources has two dimensions: decision latitude and social support. Past studies' results showed that workers who were empowered to decide what should be done in a particular situation (related to the dimension of decision latitude) or received support from supervisor and co-workers (related to the dimension of social support) were more engaged in work (De Beer et al., 2016; Naseem, 2018; Putra et al., 2017; Roslan et al., 2015; Schaufeli, 2017; Vander Elst et al., 2016; Woodhead et al., 2016). This raises the following research question: How can the construct of job resources and their dimensions influence the dispatch worker's work engagement?

Not all studies support the other propositions of the JD-R model; the construct and dimensions of job resources can moderate the effect of job demands on burnout. Possibly, this is because each dimension of job resources creates a different or contradictory moderation effect (Schaufeli, 2017; Schaufeli & Taris, 2014; Tadić et al., 2015; Van Raelghem et al., 2018). The following research question then arises: How can the construct of job resources and their dimensions moderate the job demands and burnout among the dispatch workers?

If volunteering is significant to the workers, and if the employer encourages corporate volunteerism, the workers will then be more engaged in work (Allen, 2013). Jones et al. (2014) also asserted that workers would feel more attached to their company if they were involved in corporate volunteering activities. In other words, dispatch workers' engagement in work can be increased if the courier company activates corporate volunteering activities (Korschun et al., 2014).

Corporate volunteerism carried out by a company can be more meaningful if the company's workers support and engage themselves in the charity activity (Allen, 2013; Slack et al., 2015). Since 2016, the public agencies and non-government organizations (NGOs) in Malaysia have put in considerable efforts to encourage companies to carry out volunteering activities (Hamzah et al., 2016). To support the public agencies and NGOs'

efforts, it is important to examine how the dispatch workers perceive corporate volunteering activities and how such perception can encourage them to be more engaged in work.

According to Ferri-Reed (2014), millennial workers (those who were born between 1980 and 1994) were more enthusiastic about serving the community through their work involvement as they perceived their work and life could become more meaningful; compared to other generations. However, such an argument is not necessarily true in Malaysia because the Malaysian millennial workers' involvement in corporate volunteering activities is not encouraging (Hamzah et al., 2016). Nevertheless, plausibly this is because the Malaysian government did not provide adequate support that can assist companies in planning the framework of Corporate Volunteerism (CV) (Jie & Hasan, 2016). As the number of the millennial workforce is growing, the effect of CV should be empirically tested in this study.

In examining the research questions, the objectives of this study are: (1) to evaluate the direct positive effect created by job demands and the dimensions on burnout; (2) to assess the job resources and the dimensions' direct positive effect on work engagement and its moderating effect on job demands and burnout; and (3) to appraise the direct positive effect of corporate volunteerism on dispatch workers' work engagement.

## Review of Literature

Job demands-resources (JD-R) model explains that job demands can influence burnout positively, and the proposition has been supported by many past studies that examined the following respondents: teachers (Mojsa-Kaja et al., 2015; Roslan et al., 2015; Van Droogenbroeck et al., 2014), health professionals (Kumar, 2016; Portoghese et al., 2014; Vander Elst et al., 2016; Woodhead et al., 2016), and other white-collar workers (Naseem, 2018; Li & Chen, 2018; Yan & Xie, 2016).

Naseem (2018), Portoghese et al. (2014), Roslan et al. (2015), Van Raelghem et al. (2018), and Vander Elst et al. (2016) supported another proposition of the JD-R model—when workers were given more job resources, their work engagement will increase. The model also proposes that the effect of the higher job

demands on burnout can be moderated if the workers are empowered to decide what should be done in a particular situation or received social support from supervisor and co-workers (Schaufeli, 2017; Schaufeli & Taris, 2014).

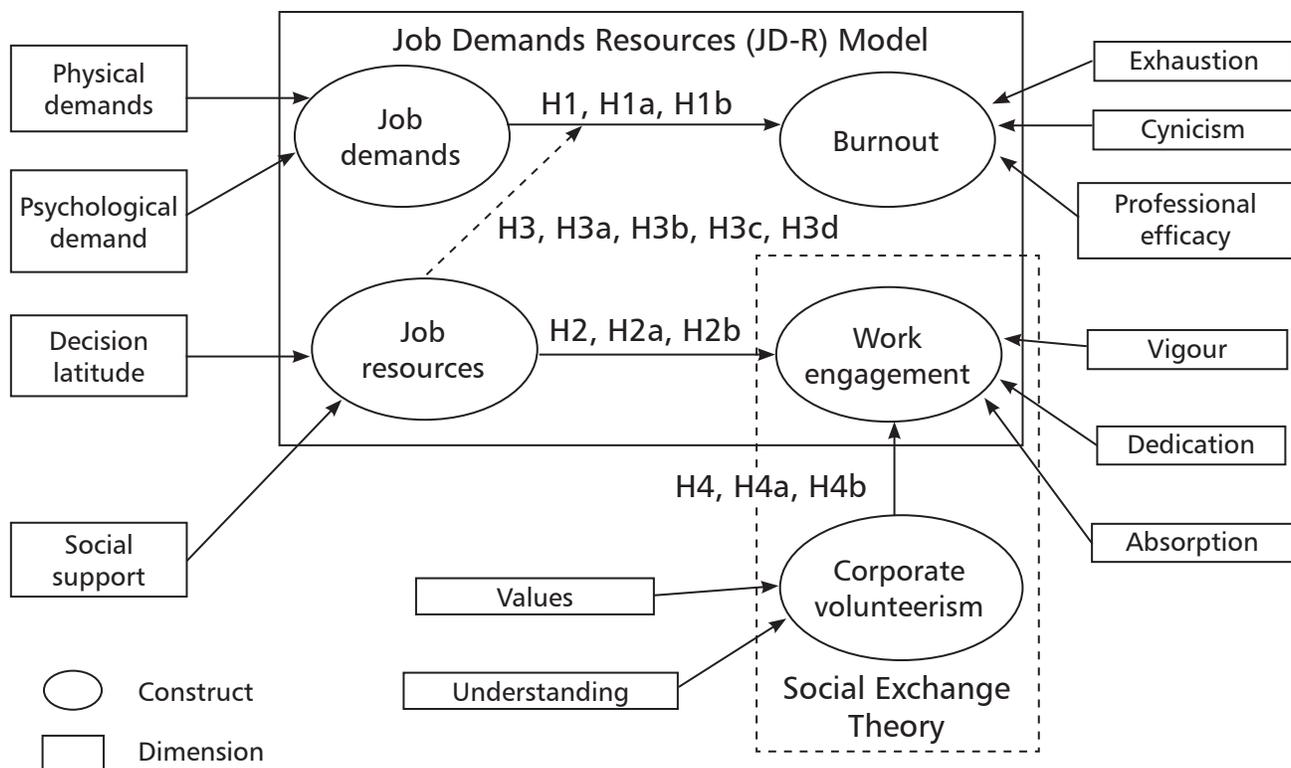
Companies are willing to implement corporate volunteering activities if the company can get beneficial returns, such as improvement of corporate image (Rodell et al., 2016). Recent studies carried out by Allen (2013), Hamzah et al. (2016), and Slack et al. (2015) showed that work engagement (in terms of vigor, dedication, and absorption) increased when the respondents had participated in community service activity.

Many past empirical studies have used the JD-R model as the basic theoretical framework, but the blue- and white-collar workers may react differently towards the dimensions of the model's constructs (De Spiegelaere et al., 2012) and the opportunity to participate in corporate volunteering activities (Allen, 2013). In other words, past studies' results

on white collar workers may not be able to represent the blue-collar workers' reaction towards the studied variables. Therefore, this study fills the literature gap by examining the structural relationships between the JD-R and corporate volunteerism constructs and the dimensions among blue-collar workers, which is rarely done in the literature.

### **Research Conceptual Framework and Hypotheses Development**

On top of designing appropriate levels of job demands and job resources, a carefully created set of corporate volunteerism programs could create a win-win situation for various stakeholders (government, workers, related communities, and company's decision-makers). Therefore, the structural relationships between the JD-R model and corporate volunteerism constructs and the constructs' dimensions were evaluated and appraised in this study (see Figure 1). The following sub-topics discuss the development of current hypotheses.



**Figure 1.** Current Study Conceptual Framework

### ***Job Demands and Burnout***

JD-R model explains that excessive job demands can fatigue workers' physical and emotional resources and will eventually lead to burnout (Hackman, 1980). Past studies on the following sectors had supported the JD-R's proposition: manufacturing (De Beer et al., 2016; Sulea et al., 2012), communication (Naseem, 2018), education (Akkermans et al., 2013; Mojsa-Kaja et al., 2015; Roslan et al., 2015; Van Droogenbroeck et al., 2014) and health care (Portoghese et al., 2014; Kumar, 2016). However, some studies that surveyed white-collar workers showed that the job's physical demands have a weak relationship with burnout (De Beer et al., 2016; Maslach and Leiter, 2016). Probably this is because the respondents' company were equipped with advanced technology equipment, which required less physical contribution from workers. In contrast, the dispatch workers need to perform manual tasks to react proactively if sudden change happens like road closure to ensure timely deliveries. Therefore, we predict that excessive job demands (irrespective of physical or psychological demands) could cause dispatch workers to burnout.

- H1: Job demands positively influence burnout;
- H1a: Physical demands positively influence burnout; and
- H1b: Psychological demands positively influence burnout.

### ***Job Resources and Work Engagement***

In the JD-R model, job resources and work engagement are expected to be positively related (Caplan et al., 1975). Many past studies showed that both dimensions of job resources (decision latitude and social support) had motivated the growth of work engagement in various sectors: manufacturing (De Beer et al., 2016; Sulea et al., 2012), communication (Naseem, 2018), education (Akkerman et al., 2013; Mojsa-Kaja et al., 2015), and health care (Putra et al., 2017; Kumar, 2016). Dispatch worker is accountable for a timely delivery. If unforeseen circumstances happened, such as unable to locate the recipient or the delivering address, they need to be proactive in finding another solution. Authority to decide on such an incident, therefore, is important to help the workers work efficiently. In addition, the workers need to work beyond the conventional working hours during peak season. To accomplish the delivery job,

the workers must work well with their supervisors and co-workers. Therefore, we anticipate that the job resources construct and the dimensions have a positive relationship with work engagement or:

- H2: Job resources can influence work engagement positively;
- H2a: Decision latitude can influence work engagement positively; and
- H2b: Social support can influence work engagement positively.

### ***Job Demands, Job Resources, and Burnout***

Past studies supported that job resources had moderated the effect of job demands on burnout among respondents worked in telecommunication company (Schaufeli et al., 2009), hospital (Van Rafeelghem et al., 2018; Woodhead et al., 2016), home health care (Vander Elst et al., 2016), and education (Roslan et al., 2015). The ability to accomplish higher job demands very much depends on the decision latitude given to workers and support received from supervisors and co-workers. If the dispatch workers were given the discretion to decide what should be done when facing unforeseen problems, the negative effects of additional physical and psychological demands could be alleviated, which will, in turn, reduce burnout. Getting support from supervisors and co-workers is important to reduce the worker's physical burden, emotional stress, and burnout (Tadić et al., 2015). Therefore, we hypothesize that job resources construct and dimensions could motivate the workers to feel exhausted and skeptical.

- H3: Job resources can moderate the effect between job demands and burnout;
- H3a: Decision latitude can moderate the relationship between physical demands and burnout;
- H3b: Social support can moderate the relationship between physical demands and burnout;
- H3c: Decision latitude can moderate the relationship between psychological demands and burnout; and
- H3d: Social support can moderate the relationship between psychological demands and burnout.

### ***Corporate Volunteerism and Work Engagement***

In this study, corporate volunteerism consists of two dimensions that are meant to measure how

much the workers value and understand the motive of volunteering activities (Allen, 2013; Hamzah et al., 2016; Rodell et al., 2016; Slack et al., 2015). The positive relationship of corporate volunteerism construct and the dimensions on work engagement have been supported by past studies that surveyed white-collar workers in the manufacturing (Biswas et al., 2013) and servicing (Allen, 2013; Putra et al., 2017) industries. Very limited studies have been carried out to analyze the effect of corporate volunteerism on work engagement among blue-collar workers. Despite their lower work position, we expect that the dispatch workers who could understand and appreciate the values of corporate volunteering activities will experience greater happiness at work. The following hypotheses are then proposed:

- H4: Corporate volunteerism can influence work engagement positively;
- H4a: Dispatch workers who valued the corporate volunteering activities would react positively towards their work engagement; and
- H4b: Dispatch workers who understand the motive of corporate volunteering activities would react positively towards their work engagement.

## Methods

The Maslach Burnout Inventory-General Survey was adopted in this study to measure the construct of burnout, which consists of three dimensions: exhaustion (five items), cynicism (five items), and professional efficacy (six items). Work engagement was adapted from 17-items Utrecht Work Engagement Scale, developed by Schaufeli et al. (2002). The work engagement construct consists of three dimensions: vigor (six items), dedication (five items), and absorption (six items). The dimensions of both burnout and work engagement constructs were measured using a four-point frequency scale, in ascending order, from 1 (never) to 4 (always).

Job demands and job resources were adopted from the Job Content Questionnaire (Karasek et al., 1998). Each of the job demands and job resources constructs consist of two dimensions: psychological demands (nine items) and physical demands (four items); and decision latitude and social support,

respectively. The dimension of decision latitude was divided into another two sub-dimensions: skill discretion (six items) and decision authority (three items). The dimension of social support also has two sub-dimensions: supervisor's support (six items) and co-workers' support (six items). Corporate volunteerism was adapted from the Volunteer Functions Inventory (VFI), developed by Clary and Snyder (1999), which consists of two dimensions: values (five items) and understanding (six items). All scale items of job demands, job resources, and corporate volunteerism were measured using a four-point Likert scale, ranging from strongly disagree (1) to strongly agree (4).

The target respondents, dispatch workers, were selected from companies located in Selangor state because the state has the largest number of courier companies operating in Malaysia (Malaysian Communications & Multimedia Commission, 2017). A multi-stage sampling method was used to select the survey locations in Selangor. First, from the nine administrative districts in Selangor, one administrative district (Petaling district) was randomly selected, using the Excel RAND function. Subsequently, using the same procedure (Excel RAND function), Petaling Jaya city located in the Petaling district was randomly selected. After that, an official requisition letter to carry out the survey was delivered to each courier company located in the Petaling Jaya city. A gentle reminder was emailed in the third week when the company failed to reply within two weeks. Most of the contacted companies responded within three weeks. Once we received favorable reply from the companies, appointments were made to discuss which dispatch workers will be surveyed and where and when the survey can be carried out. The selected workers must have at least one year of courier working experience in the present or previous company.

The master copy of the main survey questionnaire is in English because the items used to measure the constructs and dimensions were adopted from past studies. The English version questionnaire was then translated to Bahasa Malaysia (the national language of Malaysia) using a back-translation technique because the probability of correctly translating the statement's text is higher (Brislin, 1980). After removing the items suggested by the pilot study's respondents, the revised questionnaires were distributed to another group of

workers using drop-off and pick-up methods. Three facilitators were assigned in each courier company to assist the respondents in answering the questionnaire when the workers were waiting for the daily morning briefing. Three hundred fifty completed questionnaires were collected.

## Results

About 90% and 50% of the respondents were male and aged 21 to 40 years. Majority of them were educated until secondary school level. The published data on employment growth from the Malaysian Communications & Multimedia Commission (MCMC, 2017) showed that the turnover rate among courier dispatch workers is at an alarming stage. Therefore, examining factors that can increase the work engagement and reduce the burnout among dispatch workers is important to reduce the staff turnover rate.

The covariance based-structural equation modelling (CB-SEM) method from IBM AMOS version 22 was used to confirm the hypothesized model. As missing data may draw incorrect inferences about the population's actual behavior, facilitators were trained to minimize the missing data incidences. They were informed of the current study's aim and objectives and were reminded to be open-minded upon collecting data from respondents. Therefore, 350 cases without missing values were collected and used in subsequent statistical analyses.

To avoid the possibility of generating misleading findings as a result of inflated or deflate points, a few statistical analyses were carried out to examine the issue of an outlier. The squared Mahalanobis distance ( $D^2$ ) test was employed to detect the availability of multivariate outlier. Two multivariate outlier cases were detected in the data set because the probability coefficient ( $p1$ ) is less than the threshold value of 0.001.

However, the nature of the outlier issues needs to be examined first before deciding to remove or retain the two outlier cases. Cook's distance and leverage analysis were carried out to estimate the effect of identified multivariate outliers on the employees' job burnout and work engagement in the current study. As the scores of Cook's distance and leverage maximum values are below the acceptance thresholds of 1.0 and

0.5, respectively, the effect that can be generated by the existing outliers is non-significant.

Overall, the results of the outlier test and Cook's distance and leverage analysis suggested that the detected multivariate outlier cases did not create a significant effect on the predictor of variable, employees' burnout, and work engagement (WE). This is probably because the total number of multivariate outlier cases was only 0.6% of the number of cases in the current data set or only two outlier cases in the 350 cases. The outlier's effect, therefore, could have created a very mild negative effect on the parameters estimated in the present study.

In assessing the univariate and multivariate normality of the data, a number of methods have been followed. To test the univariate normality, the absolute value of skewness and kurtosis for each item were calculated. According to Kline (2015), non-normality happens when the measured item's absolute value of kurtosis item is greater than 3.0. Table 1 shows that none of the item's kurtosis absolute value is more than 3.0; therefore, univariate normality is not an issue in this study. Meanwhile, to tackle the multivariate normality issue, the multivariate critical ration (CR) coefficient was computed. From Table 1, the coefficient of multivariate CR amounted to 74.6, which is much greater than the recommended threshold value of five. This indicates that multivariate non-normality among the measurement items exist. The presence of multivariate non-normality in the current study could be possibly caused by the existence of a multivariate outlier. The result of Cook's distance and leverage test has shown that the effect of prior detected multivariate outliers was found to be non-significant.

Correlation between the studied constructs is expected, but the question is, how much is the maximum value that can be tolerated? According to Awang (2015), the correlation coefficient between each pair of independent variables should be lower than 0.85. From Table 2, the correlation coefficient between the pair of the following constructs—(a) JD and WE; (b) JR and CV; (c) JR and WE—was higher than the recommended threshold value of 0.85, which indicates that these pair of constructs are highly correlated or has a strong relationship.

**Table 1***The Result of Normality Assessment*

<b>Dimensions of studied construct</b>	<b>Item</b>	<b>Min</b>	<b>Max</b>	<b>Skew</b>	<b>C.R.</b>	<b>Kurtosis</b>	<b>C.R.</b>
Exhaustion	EX1	1.000	4.000	-.620	-4.738	-.360	-1.373
	EX3	1.000	4.000	-.776	-5.930	-.094	-.359
Cynicism	CY1	1.000	4.000	-.830	-6.338	.211	.807
	CY2	1.000	4.000	-.778	-5.946	.223	.851
	CY3	1.000	4.000	-.378	-2.888	-1.029	-3.930
	CY4	1.000	4.000	-.398	-3.043	-1.474	-5.630
	CY5	1.000	4.000	-.349	-2.663	-.832	-3.179
Professional efficacy	PE1	1.000	4.000	-.094	-.718	-1.110	-4.238
	PE2	1.000	4.000	-.024	-.183	-1.402	-5.354
	PE3	1.000	4.000	.024	.182	-1.484	-5.666
	PE4	1.000	4.000	-.046	-.349	-.921	-3.517
	PE5	1.000	4.000	-.162	-1.237	-1.283	-4.901
	PE6	1.000	4.000	-.076	-.580	-.980	-3.741
Vigor	VI1	1.000	4.000	-.800	-6.112	-.216	-.824
	VI4	1.000	4.000	-.795	-6.070	-.149	-.570
	VI6	1.000	4.000	-.722	-5.515	-.096	-.365
Dedication	DE1	1.000	4.000	-.625	-4.772	-.542	-2.068
	DE2	1.000	4.000	-.798	-6.094	.043	.163
	DE3	1.000	4.000	-.796	-6.080	-.688	-2.626
	DE4	1.000	4.000	-1.262	-9.639	1.835	7.008
Absorption	AB1	1.000	4.000	-.909	-6.941	.648	2.476
	AB2	1.000	4.000	-.785	-5.992	-.164	-.625
	AB3	1.000	4.000	.141	1.074	-.637	-2.432
	AB4	1.000	4.000	-.661	-5.051	-.612	-2.337
	AB5	1.000	4.000	-.899	-6.869	.074	.282
	AB6	1.000	4.000	-.478	-3.648	-.873	-3.333
Psychological demands	PsD2	1.000	4.000	-.412	-3.145	-.603	-2.302
	PsD3	1.000	4.000	-.427	-3.263	-.704	-2.689
	PsD4	1.000	4.000	-.667	-5.098	-.090	-.342
	PsD5	1.000	4.000	-1.029	-7.860	-.309	-1.180
	PsD6	1.000	4.000	-.196	-1.495	-.748	-2.855
	PsD7	1.000	4.000	-.687	-5.247	-.126	-.483
	PsD8	1.000	4.000	.308	2.349	-1.105	-4.220

Table 1 continued...

Dimensions of studied construct	Item	Min	Max	Skew	C.R.	Kurtosis	C.R.
Physical demands	PhyD1	1.000	4.000	.100	.766	-.997	-3.806
	PhyD2	1.000	4.000	-.745	-5.689	.165	.629
	PhyD3	1.000	4.000	-.783	-5.982	.184	.701
	PhyD4	1.000	4.000	-.782	-5.974	-.081	-.311
Skills discretion	SD1	1.000	4.000	-.830	-6.341	.297	1.135
	SD2	1.000	4.000	-.820	-6.262	1.717	6.556
	SD4	1.000	4.000	-.553	-4.225	.084	.321
Decision authority	DA1	1.000	4.000	-1.245	-9.512	.066	.251
	DA2	1.000	c	-.635	-4.851	-.180	-.687
	DA3	1.000	1.000	-.309	-2.361	-1.540	-5.879
Supervisor support	SS2	1.000	4.000	-.752	-5.747	.229	.876
	SS3	1.000	4.000	-.804	-6.139	.646	2.466
	SS4	1.000	4.000	-.810	-6.183	.387	1.478
	SS6	1.000	4.000	-.723	-5.518	.382	1.460
Co-worker	CS3	1.000	4.000	-.706	-5.390	.505	1.930
	CS4	1.000	4.000	-.628	-4.800	-.025	-.096
	CS5	1.000	4.000	-.740	-5.655	.195	.746
	CS6	1.000	4.000	-.422	-3.220	-.460	-1.758
Value	V1	1.000	4.000	-.954	-7.289	1.152	4.398
	V2	1.000	4.000	-.800	-6.114	.186	.711
	V3	1.000	4.000	-1.104	-8.432	2.645	10.101
	V4	1.000	4.000	-.751	-5.732	.334	1.277
	V5	1.000	4.000	-1.029	-7.861	1.300	4.963
Understanding	U1	1.000	4.000	-.769	-5.874	.304	1.162
	U2	1.000	4.000	-1.014	-7.742	1.150	4.394
	U3	1.000	4.000	-.699	-5.342	.529	2.019
	U4	1.000	4.000	-.875	-6.681	.503	1.921
	U5	1.000	4.000	-.823	-6.290	.465	1.774
	U6	1.000	4.000	-.703	-5.372	.439	1.675
Multivariate							74.594

Notes: Sample size (N) = 350.

Where c.r.: critical ratio.

**Table 2***Means, Standard Deviation, and Correlation Among the Studied Constructs*

	<b>M</b>	<b>SD</b>	<b>JD</b>	<b>JR</b>	<b>CV</b>	<b>WE</b>	<b>JB</b>
<b>JD</b>	2.90	0.632	1				
<b>JR</b>	2.95	0.623	0.794**	1			
<b>CV</b>	2.86	0.685	0.786**	0.905**	1		
<b>WE</b>	2.83	0.708	0.856**	0.856**	0.872**	1	
<b>JB</b>	2.45	0.651	0.528**	0.622**	0.661**	0.578**	1

*Where*

M: Mean;

SD: Standard Deviation;

JD: Job Demand;

JR: Job Resources;

CV: Corporate Volunteerism;

WE: Work engagement;

JB: Job Burnout;

\*\*p&lt;0.01.

Before deciding whether to combine or delete certain highly correlated construct, it is necessary to confirm whether the construct's dimensions are closely related to each other by running the multicollinearity analysis. Multicollinearity is not a problem in estimating parameters in the current study because the tolerance coefficients are greater than 0.1 and VIF values are smaller than the recommended threshold of 10 (Hair et al., 2014). Overall, based on the data screening test and multicollinearity results, all the studied constructs and their dimensions were retained for further statistical analyses. Nevertheless, certain items of the dimensions were omitted due to a reliability issue was found in the pilot study.

To attain unidimensionality status, all items with factor loading below the threshold value of 0.5 should be removed from the measurement model (Awang, 2015; Hair et al., 1998). The confirmatory factor analysis (CFA) result shows that the initial measurement model did not attain unidimensionality status, and therefore, the model needs to be modified. The following six items were removed in six iterations one after another: PsD5, PhyD1, DA3, AB1, AB3, and AB4, because their factor loading coefficient of each item is less than 0.5. In spite of the removal of six items, the total deleted items only accounted for 9.5% (six out of 63 items), which is below the recommended threshold value of 20% (Awang, 2015). This means the modified dataset can be used for the following measurement model's assessment. The modified measurement model in which all items have loading values higher than 0.5.

Model validity was examined by assessing the construct, convergent, and discriminant validities. Construct validity, convergent validity, and discriminant validity are common methods to assess model validity. Absolute, incremental, and parsimonious fit indices were examined to assess the construct validity. Certain fitness indexes do not achieve the required level. This indicates that certain items may be redundant with each other in the measurement model. To find out which items are redundant in the measurement model, the modification indexes were inspected. The correlated measurement error is identified, and the pair items are as follows: PsD3 and PsD7, PsD6 and PsD8, SD1 and SD4, U2 and U3, U2 and U5, CY1 and CY2, CY2 and CY3, PE1 and PE2, PE2 and PE3, PE3 and PE5, VI1 and VI6, as well as DE2 and DE3. The redundancies between items have caused the measurement model to have a poor fit. In dealing with redundant items in the model, the correlated measurement errors of redundant items were set as a free parameter.

All fit indices met the required thresholds (see Table 5). For example, the coefficient of RMSEA of the modified measurement model is lower than the maximum threshold of 0.08, and the CFI coefficient is higher than the minimum threshold of 0.90. Convergent validity is achieved because the factor loading of all items is statistically significant and more than the minimum threshold of 0.5 (Awang, 2015; Chong et al., 2015; Fornell & Larcker, 1981), and the average variance extracted (AVE) value of each construct are more than the minimum threshold of 0.5 (Chong et al., 2015; Fornell & Larcker, 1981) as well (see Table 3).

**Table 3***The CFA Results for the Adjusted Measurement Model*

<b>Dimension and/or sub-dimensions of the construct</b>	<b>Item</b>	<b>Item Descriptor</b>	<b>Factor loading</b>	<b>CR</b>	<b>AVE</b>
<b>Construct name: Burnout (CR= 0.94, AVE= 0.74)</b>					
Exhaustion	EX1	Emotional or physical strength is drained gradually	0.92	0.83	0.71
	EX3	Feel tired when working	0.76		
Cynicism	CY1	Become less interested in work	0.73	0.91	0.68
	CY2	Become less enthusiastic about my work	0.69		
	CY3	Don't want to be bothered	0.74		
	CY4	Become more temperamental/emotionally sensitive	0.97		
	CY5	Doubt of own performance	0.95		
Professional efficacy	PE1	Solve problems effectively	0.91	0.96	0.81
	PE2	Provide effective contribution	0.84		
	PE3	Good at job	0.93		
	PE4	Exhilarated when accomplishing something	0.90		
	PE5	Can accomplish worthwhile things	0.94		
	PE6	Confident at getting things done	0.88		
<b>Construct name: Work Engagement (CR= 0.90, AVE= 0.71)</b>					
Vigour	VI1	Strong and vigorous	0.86	0.9	0.75
	VI4	Bursting with energy	0.90		
	VI6	Able to handle difficulties	0.89		
Dedication	DE1	Appreciate my work	0.84	0.88	0.64
	DE2	Eager to do my work	0.70		
	DE3	Provide a new idea	0.87		
	DE4	Proud of my work	0.78		
Absorption	AB2	Fully focused on work	0.83	0.9	0.75
	AB5	Fully involved in work	0.86		
	AB6	Difficult to detach myself from work	0.92		
<b>Construct name: Job Demands (CR= 0.87, AVE= 0.6)</b>					
Psychological demands	PsD2	Restriction of time	0.80	0.87	0.54
	PsD3	Too much workload	0.78		
	PsD4	Must work faster	0.91		
	PsD6	Always busy with work	0.80		
	PsD7	Perform another job	0.51		
	PsD8	Wait until others have completed their work	0.54		

Table 3 continued...

Dimension and/or sub-dimensions of the construct	Item	Item Descriptor	Factor loading	CR	AVE
Physical demands	PhyD2	Heavy workloads	0.63	0.88	0.72
	PhyD3	Work for longer hours	0.98		
	PhyD4	Some tasks are difficult to handle	0.90		
<b>Construct name: Job Resources</b> (CR= 0.86, AVE= 0.62)					
Decision Latitudes (CR=0.83; AVE= 0.58)					
1. Skills discretion	SD1	Possess the work knowledge	0.94	0.9	0.69
	SD2	Possess special abilities	0.61		
	SD4	Can do a variety of things	0.76		
	SD5	Can do repetitive work	0.97		
2. Decision authority	DA1	Freedom to decide what needs to be done	0.68	0.52	0.36
	DA2	Allow to make decision	0.51		
Social Support (CR=0.88, AVE=0.65 )					
Supervisor support	SS2	Willing to assist	0.85	0.91	0.71
	SS3	Concern subordinate's work welfare	0.88		
	SS4	Good in organizing workload	0.93		
	SS6	Can work with subordinate	0.70		
Co-worker support	CS3	Friendly	0.51	0.85	0.59
	CS4	Helpful	0.85		
	CS5	No conflict feeling	0.84		
	CS6	Can work together	0.82		
<b>Construct name: Corporate Volunteerism</b> (CR= 0.95, AVE= 0.77)					
Value	V1	Show the sympathy	0.89	0.93	0.72
	V2	Concern about community welfare	0.83		
	V3	Willing to help	0.80		
	V4	It's important to help	0.79		
	V5	Show the compassion	0.93		
Understand the motive	U1	Learn more about social responsibility	0.90	0.96	0.8
	U2	Discover the meaning of social responsibility	0.94		
	U3	Perform social responsibility	0.89		
	U4	Deal with a variety of people	0.85		
	U5	Explore own strengths	0.94		
	U6	Materialize the intention to help	0.84		

After the removal of DA1 and DA2, the AVE values of all constructs become higher than the recommended cut off scale (see Table 3). In addition, the diagonal bolded values or the square root of AVE, which denote the correlation scores between the same variables, have become greater than other correlation scores of the variable with other variables (as shown in Table 4). In summary, discriminant validity has been achieved when items DA1 and DA2 were deleted.

To ensure the modified measurement model is reliable, the composite reliability (CR) and average variance extracted (AVE) coefficients were estimated.

Overall, the CR and AVE coefficients for each dimension construct, except DA1 and DA2, is more than the thresholds of 0.7 and 0.5, respectively (Table 5; Chong et al., 2015; Fornell & Larcker, 1981). This is also part of the reason why items DA1 and DA2 were deleted from the modified measurement model so that the subsequent modified measurement is fit for structural model analysis. The low CR and AVE coefficients for the decision latitude dimension construct could be a result of a low number of questions or poor interrelatedness between DA1 and DA2.

**Table 4**

*Discriminative Validity Index Summary*

	<b>JD</b>	<b>JR</b>	<b>CV</b>	<b>B</b>	<b>WE</b>
JD	0.775				
JR	0.52	<b>0.787</b>			
CV	0.5	0.54	<b>0.877</b>		
B	0.52	0.54	0.53	<b>0.86</b>	
WE	0.53	0.58	0.58	0.56	<b>0.843</b>

Notes: JD: Job Demands; JR: Job Resources; CV: Corporate Volunteerism; B: Burnout; WE: Work Engagement

**Table 5**

*Current Study's Model Fit Indices*

<b>Category</b>	<b>Definition</b>	<b>Name of index</b>	<b>Acceptance threshold</b>	<b>Model Fit Indices</b>
Absolute fit	Determine how well the model fits the data	Chi-square ( $\chi^2$ )	$p > 0.05$	*
		RMSEA	$< 0.08$	0.058
		SRMR	$< 0.08$	0.0575
Incremental fit	Compare the chi-square value with a baseline model to identify correlation among the variables	CFI	$> 0.9$	0.924
		TLI	$> 0.9$	0.919
Parsimonious fit	Analyses the dependence between the estimation process and sample data	Normed Chi-square ( $\chi^2/df$ )	$< 3.0$	2.173

Notes: Sample size (N) = 350 \* $p < 0.000$

The adapted structural model was adequately fit because all the fit indices could meet the recommended threshold's requirement. Furthermore, the score of SMRS (0.0575, as shown in Table 5) is below the recommended threshold score of 0.08. Given that the unidimensionality's requirement and all model fit conditions were met in all categories, further modification on the measurement model is unnecessary.

The structural equation modeling (SEM) analysis was later carried out to confirm the hypotheses. Overall, the SEM result shows that the job demands predictor has explained 28% of the total variance of the burnout, and both job resources and corporate volunteerism predictors have explained 77% of the total variance of work engagement individually.

### Direct Effects

The result of the structural paths (see Table 6) shows that higher job demands have increased burnout ( $\beta = 0.521$ ,  $p < 0.000$ ). However, only one of the job demands' dimensions—physical demands—has created a positive effect on burnout ( $\beta = 0.495$ ,  $p < 0.000$ ). Job resources, in particular social support ( $\beta = 0.122$ ,  $p < 0.000$ ), were positively related to work engagement. Decision latitude, meanwhile, has a very weak relationship with work engagement ( $\beta = 0.048$ ,  $p > 0.05$ ). Corporate volunteerism

has created a positive effect on work engagement ( $\beta = 0.757$ ,  $p < 0.000$ ). Moreover, dispatch workers who valued corporate volunteering activities ( $\beta = 0.403$ ,  $p < 0.000$ ) and understand the motive of carrying out corporate volunteering activities ( $\beta = 0.372$ ,  $p < 0.000$ ) have responded positively by being more engaged in work.

The result of the structural paths (see Table 6) also shows that one of the job demands' dimensions, psychological demands, was not significantly related to burnout; thus, H1b is not supported. Plausibly, this is because some respondents may treat works that required excessive psychological demands, such as the need to perform additional tasks rapidly, as a threat and thereby causing them to burnout. Contrary, another group of respondents may feel that they are obliged to perform any task that is given to them.

Similarly, one of the job resources dimensions, decision latitude, was not significantly related to work engagement. Originally, the decision latitude construct is comprised of two sub-dimensions: skill discretion and decision authority. Decision authority was removed in the earlier statistical process as it failed to meet the reliability requirement. The inconsistent responses towards the effect that can be generated by skill discretion on work engagement could possibly explain why H2a is not supported. Some respondents

**Table 6**

*Structural Paths Analyses and Direct Hypotheses Testing*

Hypotheses	Structural path	Path Coefficient		S.E	C.R
		Standardized	Unstandardized		
H1	JD — B	0.521***	0.514	0.045	11.416
H1a	PhyD — B	0.495***	0.417	0.049	8.476
H1b	PsD — B	0.105	0.099	0.055	1.802
H2	JR — WE	0.17**	0.206	0.064	3.239
H2a	DL — WE	0.048	0.055	0.05	1.111
H2b	SOS — WE	0.122*	0.145	0.062	2.35
H4	CV — WE	0.757***	0.862	0.06	14.458
H4a	V — WE	0.403***	0.464	0.075	6.205
H4b	U — WE	0.372***	0.407	0.069	5.897

*Note.* JD: Job Demands, PsD: Psychological Demands; PhyD: Physical Demands; JR: Job Resources; DL: Decision Latitude; SOS: Social Support; CV: Corporate Volunteerism; V: Value; U: Understanding; B: Burnout; WE: Work Engagement; S.E: Standard error, and C.R: Critical Ratio. Precision level of significant relationship:  $p < 0.05$ , \*\* $p < 0.001$ , \*\*\* $p < 0.000$ .

may feel that if they were given repetitive works, they might become more expert in existing work. Contrary, another group of respondents may feel bored and react negatively towards repetitive works. In summary, all hypotheses (H1, H1a, H2, H2b, H4, H4a, & H4b) are supported except H1b and H2a.

**The Moderating Effects**

The results shown in Table 7 indicates that the construct of job resources and all the dimensions have moderated the effect of job demands on burnout significantly, hence H3( $\beta=-0.3000$ ,  $p<0.000$ ), H3a ( $\beta=-0.283$ ,  $p<0.000$ ), H3b ( $\beta=-0.328$ ,  $p<0.000$ ), H3c ( $\beta=-0.263$ ,  $p<0.000$ ), and H3d ( $\beta=-0.269$ ,  $p<0.000$ ) are supported.

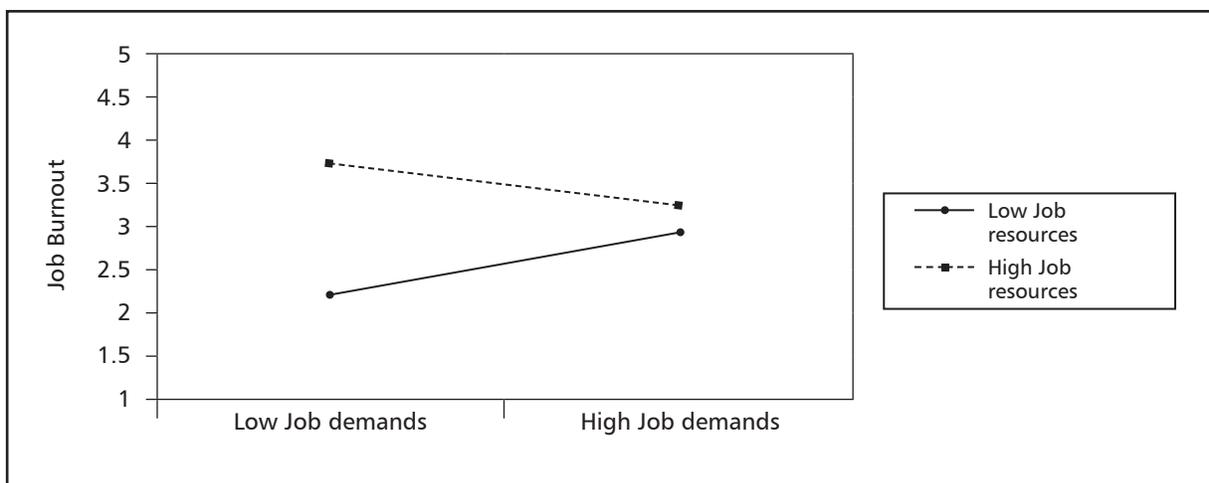
Figure 2 further supports the moderation effect of job resources on job demands and burnout (H3)—burnout had decreased when more job resources were given to alleviate the negative effect of higher job demands. Figure 3 depicts that when more job resources related to decision latitude were given to the workers, such as allowing them to be more creative in managing the delivery time, burnout has diminished (H3a). Similarly, the support given by supervisors and co-workers has made the dispatch workers less vulnerable to burnout, although higher job demands were given to them (H3b; see Figure 4).

**Table 7**

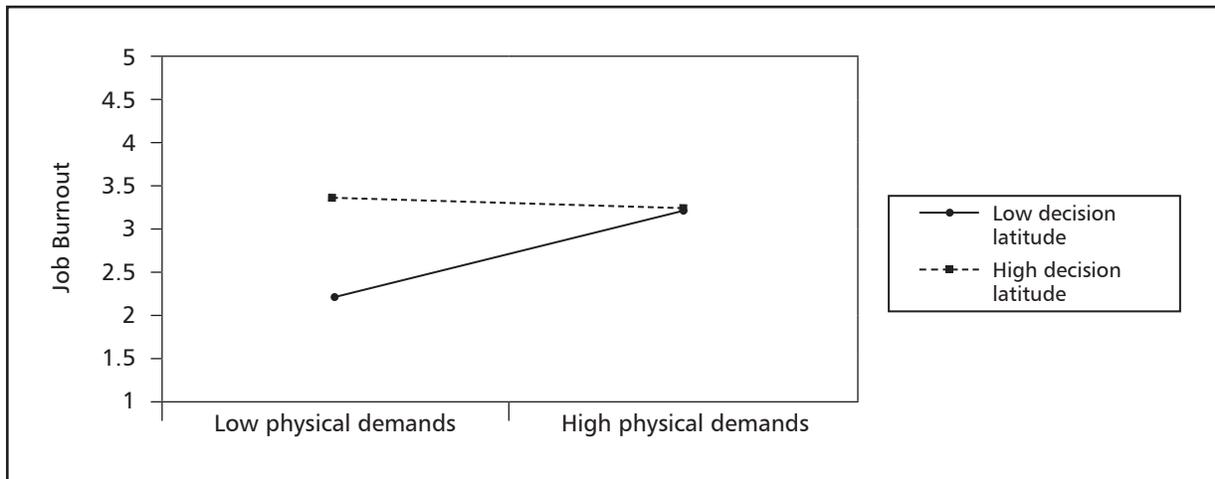
*Moderating Effects of Job Resources Between Job Demands and Burnout*

Hypotheses	Structural path	Path Coefficient		S.E	C.R
		Standardized	Unstandardized		
H3	JR x JD-B	-0.3***	-0.19	0.028	-6.907
H3a	DL x PhyD-B	-0.283***	-0.177	0.029	-6.077
H3b	SoS x PhyD-B	-0.328***	-0.212	0.029	-7.183
H3c	DL x PsD-B	-0.263***	-0.183	0.03	-6.014
H3d	SoS x PsD-B	-0.269***	-0.189	0.3	-6.274

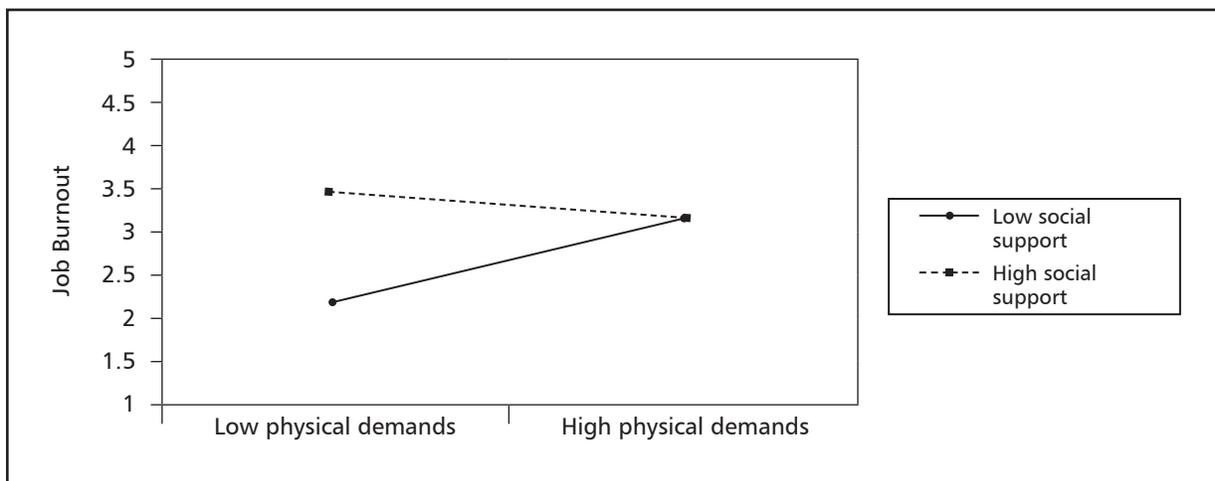
Note: JD: Job Demands; JR: Job Resources; B: Burnout; PhyD: Physical Demands; DL: Decision Latitude; SoS: Social Support; PsD: Psychological Demands, S.E: Standard error, and C. R: Critical Ratio. Precision level of significant relationship: \* $p < 0.05$ , \*\* $p < 0.001$ , \*\*\* $p < 0.000$ .



**Figure 2.** Moderation Effect of Job Resources Between Job Demands and Burnout



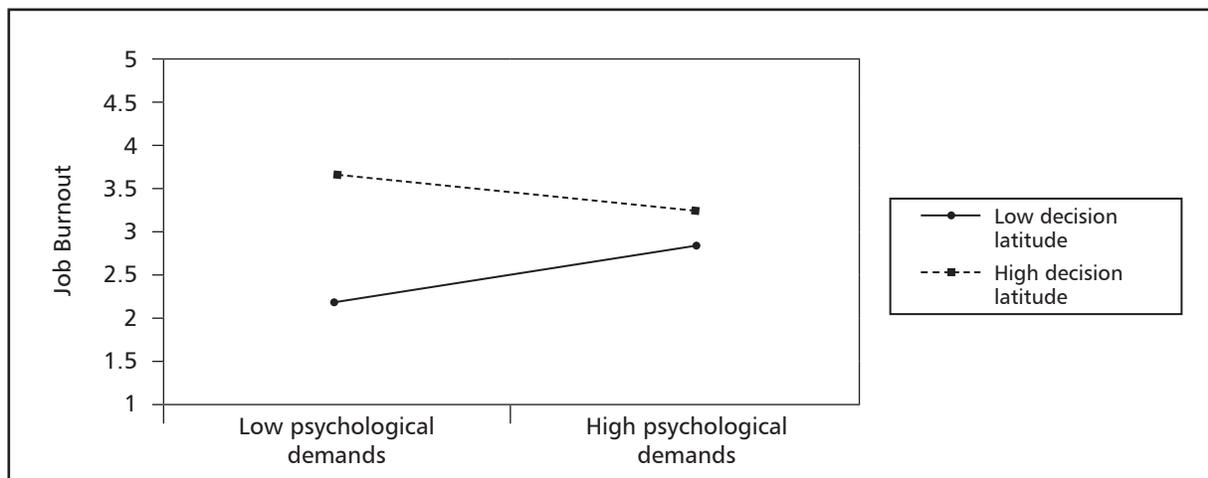
**Figure 3.** Moderation Effect of Decision Latitude on the Relationship Between Physical Demands and Burnout



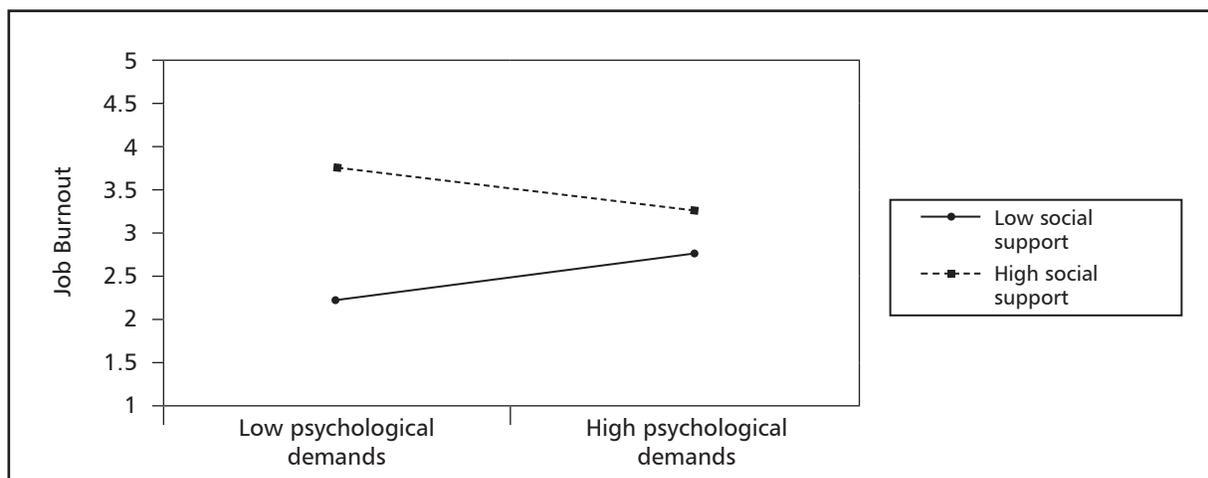
**Figure 4.** Moderation Effect of Social Support on the Relationship Between Physical Demands and Burnout

Figure 5 further supports H3c. Burnout got exaggerated when they were required to contribute additional psychological demands, such as the need to perform their work speedily. However, burnout diminished when the workers were given considerable

decision latitude, such as the opportunity to decide how the speed of courier service can be expedited. Similarly, social support from supervisor and co-worker has also mitigated the effect of psychological demands on burnout (see Figure 6).



*Figure 5.* Moderation Effect of Decision Latitude on the Relationship Between Psychological Demands and Burnout



*Figure 6.* Moderation Effect of Social Support on the Relationship Between Psychological Demands and Burnout

## Discussion

This study has three specific objectives, and each objective has its own hypotheses. To accomplish the first objective, three hypotheses were formed. The result shows that job demands (reflected by H1), particularly physical demands, related to burnout positively (reflected by H1a) and is consistent with many past studies. To decrease the incidence of burnout among the dispatch workers, policymakers should design appropriate levels of job demands and physical demands. The workloads should be fairly distributed, and flexible working hours or appropriate working shift

arrangements should be implemented. This may reduce the workers from experiencing an awkward feeling.

The psychological demands, however, did not create a significant direct effect on burnout (reflected by H1b), which is inconsistent with past studies that were surveying white-collar workers. Blue-collar workers may react differently to the dimensions of job demands and job resources compared to white-collar workers. Therefore, the propositions of the JD-R model may be arguable if the respondents' job nature and job designation are different.

All the hypotheses of the second objective are supported except one hypothesis. Hypothesis H2a

is not supported because one of the job resources' dimensions, decision latitudes, did not significantly affect WE at 0.05 precision level. Possibly this is caused by the removal of one sub-dimension of decision latitude (decision authority) and failure to obtain a concrete direction (positive or negative) of the response towards the measuring items of skill discretion construct (another sub-dimension of decision latitude).

Although decision latitudes did not affect WE significantly (related to H2a), the dimension construct has moderated the effect of physical demands on job burnout (as predicted by H3a). Dispatch workers consensually agreed that if they are given a certain level of decision latitude element, such as obtaining a certain level of job discretion to carry out their job, they would feel less burnout when additional physical demands are given to them. Therefore, training or coaching should be provided to increase the dispatch workers' knowledge and special abilities.

As supports from supervisors and co-workers related to WE significantly (related to H2b) and has moderated the effect of physical demands on job burnout (as predicted by H3b), employers can initiate and form counseling session like a buddy system in the workplace so that workers can consult the supervisor or senior staff whenever they need counseling or other assistance. Such strategies can increase the WE and, at the same time, reduce the negative effect of higher physical demands on job burnout.

To lessen the negative effect generated by psychological demands on burnout, decision latitude and social support play important moderating roles (as predicted by H3c and H3d). When workers are disturbed with a specific level of psychological demands (such as feeling the need to perform their job faster and faster), the following strategies are applicable: (a) allowing workers to plan their working schedule, (b) providing a channel for dispatch workers to siphon the customers' positive or negative comments to higher-level management, and (c) encouraging the workers to socialize and communicate with managers or supervisors or first-line employees.

The third objective that relates the CV and WE was accomplished by confirming the results of three hypotheses (H4, H4a, and H4b). The result shows that overall CV is positively related to WE (reflected by H4), particularly the dispatch workers appreciated the

corporate volunteering activities (as predicted by H4a) and understood the motive of activities (as predicted by H4b). The dispatch workers were motivated to have a better sense of workplace belonging if they are given the opportunity to participate in corporate volunteering activities. Therefore, the government should encourage courier companies to take part in corporate volunteering activities as such actions can create a win-win situation for the internal and external stakeholders. On top of that, employers could practice 'employee ownership' in corporate volunteerism planning, in which the dispatch workers are encouraged to coordinate regular corporate volunteerism projects.

The inconsistent response towards the effect of psychological demands on burnout, which contradicts with past studies' results, is a limitation of this study. Therefore, further research is suggested to study in-depth on why studied respondents have provided such a contradictory response. The second limitation is related to the removal of a sub-dimension (decision authority) and two measuring items of another sub-dimension (skill discretion from the decision latitudes dimension due to poor convergent validity and factor loading scores). We suggest that future researchers study in-depth why studied respondents have provided a different response towards measuring items of psychological demands, decision authority, and skill discretion constructs.

Finally, to conclude the study, the integration of the JD-R model (that measure the impact of JD and JR on burnout and WE) and social exchange theory (that estimate the effect of CV on WE) indeed has provided comprehensive results that are very useful to courier service company's management team to minimize the dispatch worker's burnout and increase their WE.

## **DECLARATION OF OWNERSHIP**

This report is our original work.

## **CONFLICT OF INTEREST**

None.

## **ETHICAL CLEARANCE**

This study was approved by the institution.

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