

The Relationship between Depressive Symptoms and Job Satisfaction in A Collectivistic Culture: The Moderating Role of Cultural Embeddedness

Nurul Ain Hidayah binti Abas¹
Kathleen Otto²
Ramayah Thurasamy³

¹*Department of Work and Organizational Psychology
University of Leipzig, Germany*

²*Department of Work and Organizational Psychology
Philipps University of Marburg, Germany*

³*Operations Management Department
School of Management, Universiti Sains Malaysia, Malaysia*

ABSTRACT

This study investigates the moderating role of individual-level cultural orientation and integrating style of conflict management on the relationship between subordinates' depressive symptoms and job satisfaction in a collectivistic culture. The results from 390 Malaysian respondents revealed that subordinates with lower levels of depressive symptoms display higher job satisfaction, strengthening the Affective Events Theory. Horizontal collectivism, vertical collectivism, and integrating (as a style of conflict management) are hypothesized to buffer the negative consequences of depressive symptoms. Using the Partial Least Squares (PLS-SEM) analysis, results suggested a negative relationship between depressive symptoms and job satisfaction. Supporting our moderating hypothesis, integrating style had an impact on the level of job satisfaction, in which higher job satisfaction was reported for high rather than low use of integrating style. The results provide new insights into the influence of interpersonal relationships in the shaping of a subordinate's well-being and in relation to the culture in which they are embedded. From a managerial standpoint, intervention and training designed to enhance subordinates' job satisfaction focusing on interpersonal skills are recommended. This paper describes what is considered to be the first study to examine the relationship between depressive symptoms and job satisfaction in investigating the role of Malaysia as a collectivistic country at the individual level.

Keywords: *job satisfaction, depressive symptoms, collectivism, conflict management styles & interpersonal relationship*

INTRODUCTION

Understanding the antecedents of employees' job satisfaction is critical not only for top management to be updated on employees' psychological well-being, but also to tackle current and potential organizational problems by providing effective solutions to preserve the interpersonal relationships among

organizational 'manpower'. One of the most important antecedents related to job satisfaction is a depressive symptom, indisputably recognized as a serious, worldwide public health concern. Depressive symptoms are associated with a significant risk of suicide and are used to predict lower self-reported interpersonal competence in many domains (Beskow, 1990). Certainly, there are major risk

factors outside of the workplace for depression, and it is critical to acknowledge depressive symptoms rather than stress alone, because employees who are not clinically depressed may also reveal variance in depressive symptoms (Baldwin & Shean, 2006).

In a comprehensive meta-analysis on the relationship of job satisfaction and health covering over 250,000 employees in 485 studies, Faragher, Cass and Cooper (2005) identified that job satisfaction was associated more strongly with psychological than physical health. In that systematic review, depression was among those constructs that were highest correlated with job satisfaction ($r = 0.43$). Other studies that reported significant relationships between job satisfaction and mental/psychological problems were conducted across several domains including the field of conflicts at the workplace (e.g., Allen, Herts, Bruck, & Sutton, 2000; Locke, 1976; Meier, Semmer, & Gross, 2014), and person-environment (PE) fit respectively (Kristof-Brown, Zimmerman, & Johnson, 2005; Warr & Inceoglu, 2012). However, studies on the rapidly accumulating evidence of this link emphasizing the importance of culture in inhibiting the negative consequences on employees is limited. This is particularly important as applicants' perceptions of culture have been related to organizational attraction, job choice, job satisfaction, P-O fit, and retention (e.g., Judge, & Cable, 1997; Verquer, Beeher, & Wagner, 2003). In addition, no work health-related research has been found focusing on an individual-level culture analysis, in particular on the interpersonal relationship that is embedded in their culture.

Drawing upon these reasons, this study aims to (1) extend the reach of a theoretical formulation of the relationship between depressive symptoms and job satisfaction by employing data from Malaysia as one of the collectivist countries and (2) strengthen

the understanding of the main relationships by administering interpersonal relationships of culture as a moderator, which will be coined as cultural embeddedness, revealing the richness of various mechanisms and practices in which the employees are embedded. In this study, horizontal collectivism, vertical collectivism and integrating conflict management style are three variables constructed under Malaysia's cultural embeddedness to answer the central questions of this paper: How can one's culture influence the relationship between depressive symptoms and job satisfaction? Will culture enhance the interactions, buffer the interactions, or antagonize them?

There are several important reasons why using culture as the pivotal factor makes an original contribution to organizational health research. First, by including cultural orientation on an individual level analysis, delineation of different "type" of collectivisms (horizontal and vertical collectivism) is more desirable than measuring the more abstract constructs of individualism and collectivism alone. Although national cultural studies (i.e., individualism-collectivism) have long been of interest to scholars in a wide range of disciplines, further refinement focusing on an individual level analysis is vital to stimulate new insights and afford higher quality organizational output, building upon the employees' natural characteristics.

Secondly, integrating, as a style of conflict management, is used and is utilized most by Malaysian employees. It assists them not only in increasing their interpersonal relationship to boost job satisfaction, but also to understand the constitutive entanglement and interweaving of standard communication by grounding cultural embeddedness in employees' everyday work-life experiences (e.g. Dyck, 2005). Conclusively, this study may also serve as pioneer research that paves the way for further research on cultural orientation

variability in an organizational health scope. Further refinement can stimulate new insights into cultural embeddedness, especially when examining the management of workplace communication and interpersonal conflicts.

BACKGROUND AND HYPOTHESES

Depressive Symptoms and Job Satisfaction

Aiming to enhance satisfaction and reduce work stress for their employees, the Malaysian Public Service Department has provided 257,124 of civil servants with 1,003 courses-including E-Learning courses-and 108 seminars, conferences and workshops, talks, and interventions (Public Service Department, 2012). This includes the National Healthy Lifestyle Campaign that has been implemented by the Malaysian Ministry of Health since 1991 (Ministry of Health Malaysia, 2011). However, despite the government's extensive efforts, nearly 70% of Malaysian employees are seeing an increase in work stress-related illness, with 48% of them reporting experiencing a rise in their work stress level, and more than 42% reporting suffering from lack of sleep due to work-related worries (The Borneo Post, 2013). These accumulated strains become chronic and not only imperatively impact the employees' work-life balance (Bell, Rajendran, & Theiler, 2012), but also contribute to major mental impairment such as depression, obesity and risk of heart problems (American Psychological Association, 2012).

Depression is known to be one of the affective disorders characterized by a cluster of symptoms, such as lethargy and lack of energy, prolonged sadness leading to anxiety, and major changes in eating and sleeping habits (Hammen, & Watkins, 2008). Throughout this paper, depressive symptoms are denoted as a continuous variable, rather than a clinical category

indicating the degree of individual differences in depressive symptoms (Prisciandaro & Roberts, 2005). Job satisfaction is defined as the degree to which employees have a positive affective orientation towards their jobs (Locke, 1976) and is usually considered to concern the affective dimensions of well-being, rather than its behavioral and cognitive dimensions (Brief & Weiss, 2002). In view of the fact that it relies upon affective involvement, Spector and Bruk-Lee (2008) found that subordinates are not satisfied with their jobs when they experience negative mental states. In another major study of depressive symptoms affecting relationships, Meier, Semmer, and Gross (2014) discovered that the negative effect of conflicts on psychological well-being are also strengthened. By drawing on the concept of work stressors, Burgard, Elliot, Zivin, and House (2013) noted that depressive symptoms are able to aggravate the negative impact the work stressors have on psychological well-being. This in turn strengthens the loss spiral by linking it to negative working conditions and, hence, leading to reduced job satisfaction which results from negative emotional dimensions (e.g., Côté & Morgan, 2002; Fisher, 2000; Liu, Prati, Perrewé, & Breymer, 2010).

The studies mentioned above thus far provide evidence that depressive symptoms have a negative relationship with job satisfaction. The theoretical rationale for this is derived from the Affective Events Theory (Weiss & Cropanzano, 1996); where employees' accumulated work-related affective experiences, attitudes, and behaviors influence their level of job satisfaction, depending on the affective reactions and attitudes they have formed. This theory makes job satisfaction a focal part of organizational attitude, where important work events influence emotional experience. In other words, this theory supports the notion that employees experiencing negative emotional states

experience lower levels of job satisfaction compared to their counterparts.

Therefore, by drawing on the concept of the AET theory, we hypothesize:

Hypothesis 1. The lower the levels of depressive symptoms, the higher the levels of job satisfaction.

Cultural Embeddedness

The term ‘cultural embeddedness’ is used by James (2007) to refer to the exploration of spatial variable sets of cultural conventions, norms, values, and beliefs of institutions (managements) and people (employees). Cultural embeddedness is grouped together in terms of its effects on three general sets of ‘relations of embeddedness’: (i) between two individuals, (ii) between individuals and the firm, and (iii) between the firm and its wider (formal and informal) institutional environment; in which the first and second general relations is concerned. In order to predict how members of a certain cultural group would respond to job satisfaction from these relationships, the relevant characteristics of a culture need to be described systematically first.

There is a large volume of published studies validating Malaysia as a collectivistic culture. For example, in the Hofstede National Culture study (Hofstede, 2001), Malaysia scored 26 out of 100 on the individualism dimension, indicating low individualistic and high collectivistic characteristic. This also means Malaysia is strongly emphasizing harmonious maintenance and close long-term commitment in exchange for loyalty in contrast with their individualistic counterparts. In Cultural Dimension Global Leadership and Organizational Behavior Effectiveness (GLOBE) studies (House, Hanges, Javidan, Dorfman, & Gupta, 2004), Malaysia scored low on the individualism national culture, and high for

both societal institutional collectivism and societal in group collectivism, also revealing its collectivistic characteristics. Therefore, two spatial variables from Malaysian collectivistic culture data are chosen: cultural orientation (horizontal collectivism and vertical collectivism) and integrating conflict management style. By using these variables, it helps to explain their interpersonal relationships with colleagues, with supervisors and the conflict styles embedded in the individual’s particular organization. As will be explained in details later on, integrating is highly associated with collectivism (e.g., Holt & DeVore, 2005) and is proven to be the most effective management style when dealing with interpersonal conflicts at work (e.g., Rahim, 2002). Therefore, it can be seen as one of the opportunities to avoid disharmony within a workplace. This is supported by Brown and Peterson (1993), who stated that interpersonal workplace relationships are able to increase employees’ satisfaction, thus maintaining harmonious social relationships for employees to fulfill their need for affiliation, as well as their need to belong.

Moderating Effect of Collectivism Orientation

In their major study of cultural orientation, Triandis and Gelfand (1998) reported that individuals within a particular culture are likely to differ in the degree to which they value equality or accept hierarchy. In valuing equality, Horizontal Collectivism (HC) is a cultural pattern in which individuals see the self as an aspect of an in-group. The self is merged with members of the in-group, all of whom are extremely similar to each other. Having such a characteristic, they tend to care about and cooperate with other group members (Triandis, 2001; Triandis & Suh, 2002) and are expected to be satisfied with the equality practice of the organization as long as the equality among themselves is

endorsed, for example the allocation of rewards and resources among colleagues.

It is assumed that the impact of depressive symptoms on job satisfaction is weakened when horizontal collectivism is present, because horizontal collectivism changes the mechanisms in the manner of equality, sociability and benevolent relationships maintenance they practice (Triandis, 1995). That is to say, high horizontal collectivism plays a role as a moderator in buffering the negative consequences of depressive symptoms on job satisfaction rather than when it is low. From an interpersonal relationship perspective, depressed employees, who perceive equality as important to maintain their valued work relationship, will not feel injustice or dissatisfied when rewards and resources given by supervisors are the same among all colleagues. This remains true even if they put higher effort into the job tasks as compared to other colleagues. Furthermore, job satisfaction is a function of work-related rewards and values (Kalleberg, 1977; Vroom, 1964). Job satisfaction can be easily achieved when the demands given surpass what their job offers.

Although the self is also interdependent, employees in Vertical Collectivism (VC) see members of the in-group as different from each other: some have a higher status than others as they put value on hierarchy. Vertical collectivistic employees are more authoritarian and traditional, as their social behavior is governed by social norms, duties, and obligations based on hierarchical positions. It is to be expected that any orders and instructions coming from a supervisor, whether pertinent and in line with the organizations' objectives and performance, or constructive for the subordinates' performance, are accepted willingly by the subordinate.

Thus, the influence of depressive symptoms on job satisfaction is reduced in the presence of vertical collectivism because

the mechanism is weakened by way of acceptance of inequalities among people as valid and important in one's society. This can be explained in the work undertaken by Robbins (2003), where a good supervisor-subordinate relationship creates a supportive working environment. Consequently, when this determinant (i.e., emotional experiences at work, resulting from the affective correlates of emotional regulation) is fully attained by the employees by their supervisors, job satisfaction and performance can be achieved (Liu et al., 2010). With that being said, vertical collectivism can also buffer the negative consequences of depressive symptoms on job satisfaction.

Given that employees of collectivistic cultures tend to display loyalty to their in-groups, respect authority and age, and conform to the wishes of a paternalistic leader, both sub dimensions of horizontal and vertical collectivism are hypothesized to have a strong influence in weakening the negative relationships between depressive symptoms and job satisfaction. This notion is supported in a local study by Asma (1992), who associated Malaysians with having fundamental collectivist values such as respect for authority and hierarchy, respect for seniors/elderly people, and values harmony, teamwork and cooperation. From a health perspective, collectivistic individuals are willing to maintain the social harmony they value even if the cost of doing so exceeds their individual benefits in the organization (Triandis, 1995). With regards to interpersonal relationship, this is particularly important for employees with depressive symptoms as they are more dependent on others, are insecure about their feeling of belonging, and they have a fear of abandonment and helplessness (Blatt, Quinlan, Chevron, McDonald, & Zuroff, 1982).

Based on the above discussion, we hypothesize that:

H2: Collectivism, both horizontal (H2a) and vertical (H2b), moderates the negative relationships between depressive symptoms and job satisfaction in such a way that relationships will be weakened when horizontal collectivism and vertical collectivism are high.

Moderating Effect of Integrating

Integrating is one of the five conflict management styles (CMS). In 1979, Rahim and Bonoma developed these CMS—integrating, avoiding, compromising, dominating and obliging—to describe a person's conflict management. These CMS are derived from a Dual Concern Model that emphasizes concern for self and others (Blake & Mouton, 1964). Individuals who use integrating as their style of conflict management have a high concern for self and others in achieving solutions that mutually satisfies both parties (Rahim, 2010).

In this study, integrating is chosen for two reasons. First, in collectivistic cultures, integrating has been identified as the preferred conflict managing style (e.g., Cai & Fink, 2002; Komarraju, Dollinger & Lovell, 2008; Holt, & DeVore, 2005) for both horizontal and vertical collectivists (Brew & Caining, 2004). In Malaysia specifically, integrating is used most among public sector managers when handling interpersonal conflicts (Suppiah, 2006), and also in private organizations among their superiors, peers and subordinates (Said, 1996). Second, integrating is associated with positive individual and organizational outcomes, such as job satisfaction, interpersonal outcomes, job outcomes and system outcomes (Lian, & Tui, 2008; Weider-Hatfield & Hatfield, 1995). With a high concern for self and others, integrating is also proven to be the most effective style of conflict management (Pruitt, Carnevale, Ben-Yoav, Nochajski, & Slyck, 1983; Rahim, 2002; Rahim, Magner & Shapiro,

2000), leading to highly effective decision-making among group members (Kuhn & Poole, 2000). As a result, interpersonal communication and social interaction are improved (Rahim, 2002; Rahim et al., 2000). As supported by Meier, Semmer and Gross (2014), the latter is especially important in that people with depressive symptoms are more vulnerable to conflict, and hence it is related to deficiencies in interpersonal competence such as conflict management (Segrin, 2000). Furthermore, conflicts that result from adverse interpersonal relationships may be escalated and the negative effect may be further intensified by the fact that people with depression are prone to ruminate on negative events and current feelings (e.g., Moulds, Kandris, Starr & Wong, 2007).

Plausible reasons for this, as observed by Coyne (1976), are that people with depression are likely to interact with others in an aversive manner because the content of the conversation has a negative tone and is self-referential. Forgas (1998) extends these findings by adding that, in comparison with people in a neutral mood, they tend to show more dysfunctional conflict behavior (e.g., less cooperation), which makes them less likely to be able to cope with conflicts efficiently.

The empirical studies presented so far have provided evidence that by using integrating as a style of conflict management, people can gain more confidence and sense of accomplishment compared to their counterparts, as supported by van Dierendonck and Mevissen (2002). Due to the equated prosocial orientation, integrators are able to adapt to their dispute resolution style (Kelley & Stahelski, 1970). For instance, if a supervisor uses integrating to solve conflicts, the subordinate responds in a similar style (e.g., negotiation and problem solving). This positive mental state that integrators have may assist depressed employees in gaining satisfaction in their jobs by

reverting the negative effect of depressive symptoms in interpersonal relationships. Eventually, the harmonious relationship between subordinates and supervisors in the workplace can be supported by applying this style.

Theoretically, if we apply the Affective Events theory to the Dual Concern Model, we can predict that the impact of depressive symptoms is lessened when integrating is present, because integrating changes the mechanisms in the manner of high concern for both parties and prosocial orientation they have. In other words, the negative consequences of depressive symptoms on job satisfaction in terms of poor interpersonal relationships could be buffered when employees use integrating.

Based on the considerations presented above, we hypothesized that:

H3: Integrating moderates the negative relationships between depressive symptoms and job satisfaction in such a way that the relationship will be weakened when integrating is high.

METHODS

Data Collection

Data was collected from 410 Malaysian public sector employees in a cross-sectional questionnaire study. Each organization was sent an introduction letter summarizing the research and a debriefing form to prove the authenticity of the study and explaining confirmed anonymity. For the sampling criteria, respondents had to have direct supervisors with which they had more than one year working experience. Two methods of data collection were employed: some questionnaires were delivered online and some were in printed format. Of the total number of questionnaires completed, twenty were excluded because of excessive

missing data and response biases, leaving a final total of 390 respondents.

Respondents completed the questionnaire at their own pace. Among the respondents, 62.1% were female and 30% possessed a bachelor's degree. The mean age of the respondents was 34 years ($SD = 8.42$). Of the respondents, 28% of the employees worked in general management, 24% in the field of finance and administration, 11.7% in customer service, 8.1% in human resources, and the remaining participants worked in the fields of transportation, production, and health care.

Measures

The original questionnaire underwent a pre-test (translation and decentering process) and a pilot test before the main data analysis. The pre-test was conducted with three experts in the constructs of interest to examine the face validity of the instruments. Next, three language experts in Malay and English, and two decentering process experts were recruited to assist in the back translation procedure. Several discrepancies on the instruments' contents, design perspectives and linguistics were identified in the Malay translations and are corrected to ensure better quality translation. Subsequently, a total of 123 voluntary employees in a pilot study completed an online questionnaire to test the adequacy of the translated surveys, and to assess time and resource problems that could occur during the main study. Following their suggestions, modifications were made, and the Malay version of the questionnaire was completed. To test the hypotheses, a questionnaire made up of single and multiple measure items for the constructs of interest was employed. The measures are explained below:

Depressive Symptoms

Depressive Symptoms were measured using twelve items from Bech, Rasmussen,

Olsen, Noerholm, and Abildgaard's Major Depression Inventory (MDI) (2001). Functionally, the MDI consisted of only 10 items as item 8 and item 10 each have two subitems, where only the highest score of either a or b that is counting in items 8 and 10. This measure used a 6-point Likert-scale ranging from 0 = *at no time* to 5 = *all the time*. A sample item reads, "How much of the time you have felt low or sad". The respondents had to answer based on what they had felt over the past two weeks.

Collectivism

Two sub-dimensions of collectivism, horizontal and vertical collectivism (*HC* and *VC*), were measured using Singelis, Triandis, Bhawuk and Gelfand's Individualism and Collectivism Scale INDCOL (1995). Specifically, *HC* and *VC* had to be answered using a 7-point Likert scale which ranged from 1 = *strongly disagree* to 7 = *strongly agree*. An example of the *HC* items is "I feel good when I cooperate with others", while for the *VC* items an example is "I would sacrifice an activity that I enjoy very much if my family did not approve of it". Both *HC* and *VC* had eight items, but only seven items could be used for analysis of *HC* and six items for *VC*. Reason was that the loadings of those three items (*HC*5, *VC*4 and *VC*6) lower than 0.4, thus the items need to be deleted to achieve good convergent and construct validity (Henseler, Ringle, & Sinkovics, 2009).

Integrating

Integrating style of managing interpersonal conflicts with a supervisor was measured with seven reflective items of the Rahim Organizational Conflict Inventory (ROCI-II)¹ (1983). A sample item of the *IN* item is:

"I try to investigate an issue with my supervisor to find a solution acceptable to us". Respondents had to indicate the degree to which they dis(agree) with each of the statements on a 5-point scale from 1 = *strongly disagree* to 5 = *strongly agree*.

Job Satisfaction

Job Satisfaction was operationalized using a single-item measure from Wanous, Reichers and Hudy (1997), which relates to the following question "How satisfied are you with your job as a whole?" The single indicator was measured with a 7-point scale indicating the respondents' degree of satisfaction 1 = *very dissatisfied*; 7 = *very satisfied*. The single item was used due to practical considerations in an effort to decrease the overall number of items in the questionnaire (Wanous et al., 1997).

RESULTS

The model shown in Figure 1 was assessed using SmartPLS 2.0 (Ringle, Wende & Will, 2005). Partial Least Squares (PLS) path modeling assesses the measurement model's psychometrics properties and estimates the parameters of the structural model including the moderating effects in the nomological network. For this study, PLS was chosen due to its ability to perform better when the objective is 'prediction' and the phenomenon is relatively new or changing (Chin & Newsted, 1999). Thus, it averts the limitations of covariance-based SEM in model complexity, distributional properties, measurement level, and factor indeterminacy (Chin, 1998; Fornell & Bookstein, 1982). Non-parametric bootstrapping with 500 replications was applied to obtain the standard errors of the estimates.

¹ *Rahim Organizational Conflict Inventory-II, Form A*: Used with permission from the © Center for Advanced Studies in Management. Further use or reproduction of the instrument without written permission is prohibited.

Common Method Variance

To address the issue of common methods variance (CMV), three types of Likert scales were employed: 5, 6 and 7 point Likert scales in the self-administered questionnaire. Items in the questionnaire were jumbled up, and not divided by the objective of the items. For example, “Part One” was used instead of “Conflict Management Styles” as a heading for part one. The above-mentioned methods are suggested by Podsakoff, MacKenzie, Lee, and Podsakoff (2003). Furthermore, a pre-test, outliers and multicollinearity checking (with cutoff 0.9) had also been conducted prior to the main study.

Assessment of the Measurement Model

Construct validity of the instrument can be assessed using convergent and discriminant validity. As shown in Table 1, the loadings for all the items used range from 0.49 to 0.85, with the cutoff value for loadings being 0.40 (Henseler, Ringle & Sinkovics, 2009). As aforementioned reason, items

HC5 of horizontal collectivism, and items *VC4* and *VC6* of vertical collectivism were deleted because the loadings were lower than 0.40. Consequently, the construct validity was confirmed when all the items measuring a particular construct loaded highly on that construct, and lower on the other constructs.

Following the approach suggested by Hair et al. (2010), convergent validity was assessed by using factor loadings, composite reliability (CR), and average variance extracted (AVE) scores. Both CR and AVE were calculated and reported in Table 1. The CR scores are highly satisfactory, ranging from 0.81 to 0.94, exceeding the recommended value of 0.7 (Hair et al., 2010; Fornell & Larcker, 1981). The AVE scores range from 0.42 to 0.60, exceeding the recommended value of 0.4 (Hulland, 1999). Since *JS* is a single item measure, the loading is indicated as 1.00 while the CR and AVE for the construct are denoted as SIM.

Table 1 Results of Measurement Model

Construct	Items	Loadings	AVE	CR
Depressive Symptoms	DP1	0.81	0.60	0.94
	DP2	0.82		
	DP3	0.85		
	DP4	0.85		
	DP5	0.83		
	DP6	0.74		
	DP7	0.75		
	DP8	0.63		
	DP9	0.84		
	DP10	0.54		
Horizontal Collectivism	HC1	0.77	0.52	0.89
	HC2	0.83		
	HC3	0.75		
	HC4	0.79		
	HC6	0.79		
	HC7	0.59		
	HC8	0.49		
	VC1	0.60		
VC2	0.51			
VC3	0.76			

	VC5	0.52		
	VC7	0.71		
	VC8	0.72		
Integrating	IN1	0.59	0.52	0.88
	IN2	0.79		
	IN3	0.81		
	IN4	0.77		
	IN5	0.67		
	IN6	0.74		
	IN7	0.67		
Job Satisfaction	JS	1.00	SIM	SIM

The discriminant validity of the measures is the degree to which items differentiate among constructs. It was tested by comparing the correlations between constructs and the square root of the AVE for that construct (Fornell & Larcker, 1981). The loadings of the measurement indicators on their respective latent constructs are positive and significantly different from zero. To confirm adequate discriminant validity

among the various constructs, the correlations among latent constructs are reported in Table 2. As can be seen from Table 2, the square root of AVE by each of the latent variables is higher than the correlations between the latent variable, and all the other latent variables. Once the measurement model is satisfactory, the assessment of the structural model results is proceeded, as noted by Höck, Ringle and Sarstedt (2010).

Table 2 Discriminant Validity of Constructs

Construct	Mean	SD	1	2	3	4	5
Depressive Symptom	2.01	0.99	0.77				
Horizontal Collectivism	5.48	0.91	-0.10	0.72			
Integrating Job Satisfaction	4.17	0.54	-0.20	0.53	0.72		
	5.3	1.29	-0.40	0.29	0.28	1.00	
Vertical Collectivism	5.4	0.82	-0.10	0.31	0.15	0.14	0.65

Diagonals (in bold) represent the square root of the AVE while the other entries represent the correlations.

SIM Single Item Measure

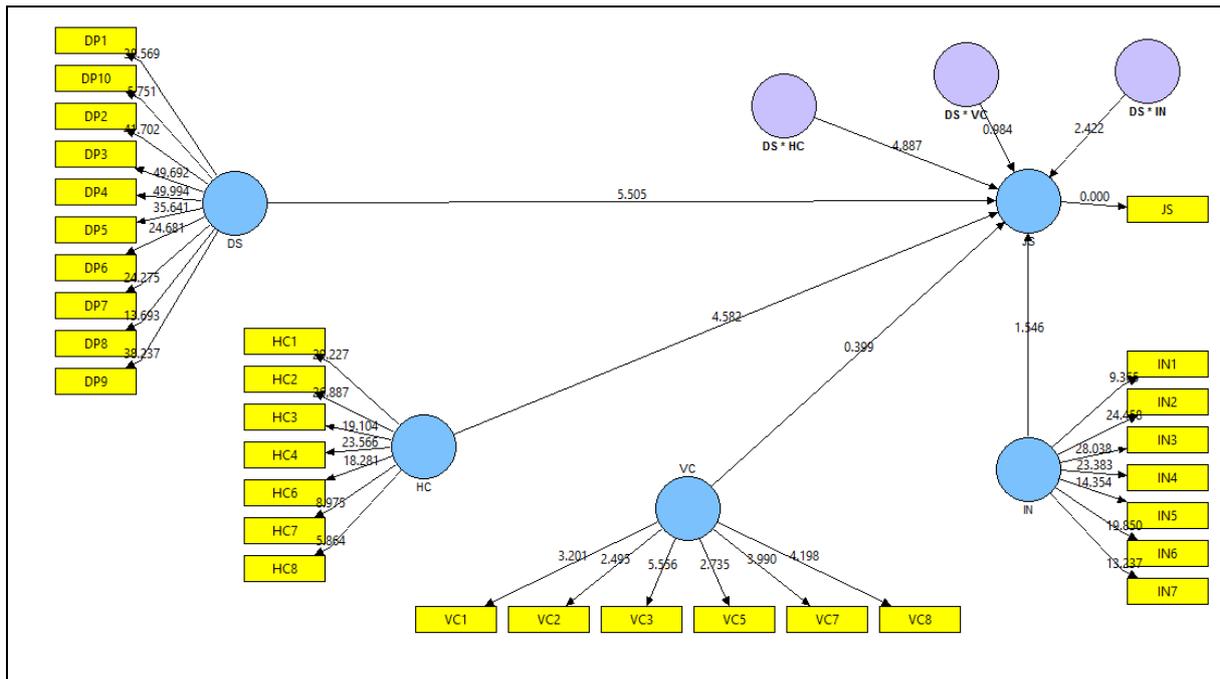


Fig. 1. Result of the PLS analysis

Assessment of the Structural Model

To test hypotheses 1, 2a, 2b and 3, the structural model results of the path analysis was used. The R^2 value of depressive symptoms was 0.342, suggesting that 34.2% of the variance in the levels of job satisfaction is explained

by depressive symptoms. As shown in Table 3, the main effect of depressive symptoms on job satisfaction was found to be negative ($\beta = -.36$, $t = 7.92$), implying that the lower the levels of depressive symptoms, the higher the levels of job satisfaction. Therefore, H1 is supported.

Table 3 Path Coefficients and Hypothesis Testing

Hypothesis	Construct	Beta	SE	T Value	Supported
H1	DS -> JS	-0.36	0.05	7.92	Yes
H2a	DS * HC -> JS	-0.29	0.07	4.19	No
H2b	DS * VC -> JS	-0.12	0.12	1.02	No
H3	DS * IN -> JS	0.27	0.10	2.80	Yes

Moderating effect

A PLS product-indicator approach (Chin, 2003) was used to test whether the moderator variables significantly change the influence of a predictor (*DS*) on the outcome (*JS*). The results indicated that only integrating, as a conflict management style, showed a significant moderation hypothesis on the relationship between DS and JS, but not horizontal collectivism and

vertical collectivism. Hypotheses 2a stated that horizontal collectivism moderates the negative relationship between depressive symptoms and job satisfaction where the relationship will be weakened when horizontal collectivism is high. The results showed that the size of the moderating effect is small ($f^2 = 0.09$; Cohen, 1998), the resulting beta change is significant ($\beta = -0.29$, $t = 4.19$) but in a different direction.

In other words, in the presence of high horizontal collectivism, the depressive symptoms' influence on job satisfaction was strengthened. Likewise, hypothesis 2b is also not supported, because in the presence of vertical collectivism, the negative relationship between depressive symptoms and job satisfaction was not weakened when vertical collectivism was high ($\beta = -0.12$, $t = 1.02$). The moderating effect size is $f = 0.02$, which is also small, and no significant effect was shown.

The significant result emerging from the data is integrating style has an influence in that it exerts a moderating effect on the direct effect relationships ($\beta = 0.27$, $t = 2.80$). As shown in Figure 2, significant results supported H3 in that integrating moderated the negative relationship between depressive symptoms and job satisfaction, as the relationship was

weakened when integrating style was high. It implies that by applying integrating style when handling conflicts, the negative consequences of depressive symptoms on job satisfaction are buffered effectively. The different slopes between low-high integrating clearly show a stronger relationship between depressive symptoms and job satisfaction for high rather than low levels of integrating style. The effect size of the moderating effect, which is $f = 0.08$, is small.

Predictive relevance (Q^2) is used to assess the predictive validity of the tested model (Chin, 1998). In the path model, the predictive relevance Q^2 of *JS* has a value of 0.24. Since the value is greater than 0 (Fornell & Cha, 1994), it implies that the model has a predictive relevance for this construct.

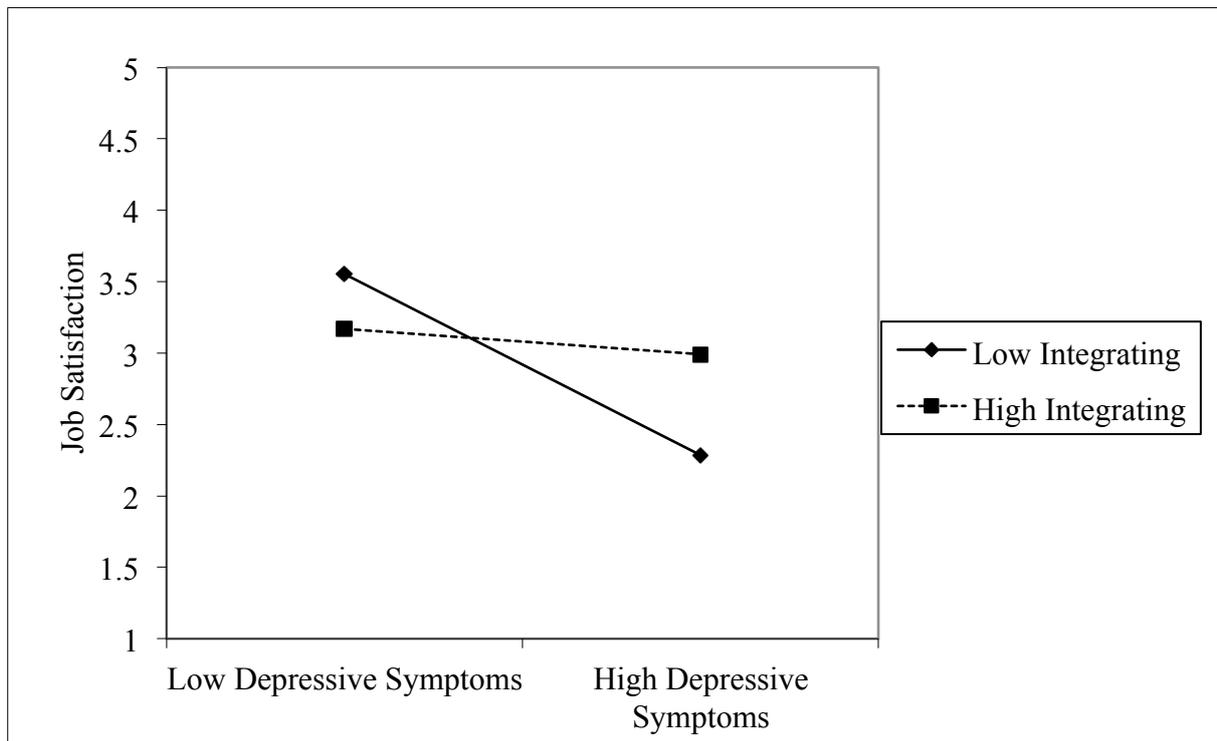


Fig. 2. Plot of integrating x depressive symptoms on employees' job satisfaction

CONCLUSION

Discussion

This research has extended theories on the relationship between depressive symptoms and job satisfaction in the context of collectivistic culture by producing additional and consistent evidence of this relationship. This study has successfully framed depressive symptoms as a detrimental factor in decreasing employees' job satisfaction, reporting a strong negative relationship between depressive symptoms and job satisfaction (H1). It thus contributes theoretical support for the study by Weiss and Cropanzano, (1996), Affective Events Theory, and Spector and Bruk-Lee (2008) and Meier et al.'s study (2014), indicating that negative emotional states may reduce employees' positive reactions towards their job.

Aiming to reveal the mechanisms and practices of an employee's culture in which they are embedded, the current research extends this confirmation by adding cultural embeddedness as a variable that could change the outcomes of job satisfaction. It was argued that horizontal collectivism, vertical collectivism, and integrating would buffer the negative consequences that depressive symptoms have on job satisfaction. Contrary to expectations, this research found high horizontal collectivism to be an enhancer of the interactions of depressive symptoms and job satisfaction (H2a). Despite the result refuting the hypothesis, it shows that in an egalitarian reward system, job satisfaction is lessened significantly for employees who experience negative feelings and who have self-destructive thoughts. Similarly, the moderating effect of vertical collectivism as a buffer was not supported in the study (H2b). A possible explanation for this result could be explain by Diener, Diener, and Diener (1995), who mentioned that collectivists have a smaller sense of

happiness and self-satisfaction in comparison to their individualist counterparts. Their lower scores may indicate that valuing either equality norm or hierarchical structure were not the critical social factors that could prevent the escalation of job dissatisfaction, as suggested by Triandis (1991). It is also important to bear in mind that with public sector employees as the sample, the unexpected finding could be due to their stereotype, as discussed by Pollitt (2003). Public sector employees are stereotypically assumed to ensure their own political correctness, and it is hard to measure their own goals and success because of the breadth of their work. Due to these limitations, they may demonstrate fewer capacities in self-regulation of identity and performance, and thus hinder themselves from achieving job satisfaction. It is however worth mentioning that employees with low levels of depressive symptoms and high horizontal collectivist orientation reported higher job satisfaction than their counterparts with low horizontal collectivist orientation. Only in face of depressive symptoms does the level of job satisfaction decrease, and therefore it is shown that it is dependent on the level of one's own depressive symptoms.

One anticipated finding was that the moderation results of integrating worked successfully as a buffer for the relationship between depressive symptoms and job satisfaction relationships (H3). It implies that depressive symptoms employees who often use integrating as their style of conflict management are found to have a higher level of job satisfaction than their counterparts who use integrating less often, which has not been adequately explored in the literature on interpersonal relationships in a collectivistic country. This result is in agreement with the Dual Concern Model theory (Blake and Mouton, 1964) that high concern for oneself and for others in achieving mutual decisions increases employees' job

satisfaction. Consistent with previous studies (e.g., Kelley & Stahelski, 1970), the other party's conflict management style can be adapted by integrators, because of the prosocial orientation they have. Eventually, the negative consequences from depressive symptoms on job satisfaction are buffered because of: 1) negative events and their current feelings, as noted by Moulds, Kandris, Starr and Wong (2007) and 2) the ability to maintain positive interpersonal relationships and harmony at work.

Limitations and future directions

The study should be considered in light of its limitations, which also suggests future research. First, the nature of the research could have been better if the data from a dyad technique had been collected. This would have elucidated the thoughts from the supervisor's perspective and may have provided additional support for the results obtained. Furthermore, depressive symptoms are a vulnerable factor that is likely to undermine individuals' psychological and physical resources. This in turn affects the organizational performance if both parties have fewer of these resources. Therefore, obtaining data from employees in both higher (supervisor) and lower positions (subordinates) would be a valuable addition to future studies.

Secondly, as this research is a cross-sectional study, future studies should also conduct a cross-longitudinal study so that the causal order of the relationship between depressive symptoms and job satisfaction together with the influence of cultural embeddedness can be determined with certainty. Although the possible common method variance problem is not an issue for the present research, collecting data for over more than one period of time or undergoing different time frames is preferable for more valid results. Another possible area of future research would be

to investigate the direction of causality of the direct effect, and nature of moderating effect using different theories. For example, is job satisfaction a consequence or an antecedent of depressive symptoms? Could integrating be a mediator between depressive symptoms and job satisfaction in the justification of different theories?

From a theoretical perspective, considerably more work on cultural embeddedness as a moderator needs to be done to determine the effect it has on employees' mental health. By extending investigations to other populations (e.g., not just Malaysians) and settings (not just collectivistic culture), the understanding of the phenomenon linking work and mental health would be enhanced. From a methodological perspective, an arguable weakness is the single-item measure used for job satisfaction construct whose credibility for research has been doubted. However, the evidence below on the usage of this particular measure presented eliminates doubt: 1) According to Wanous, Reichers and Hudy (1997), a single-item global measure of general job satisfaction is a common indicator in industrial psychology and human resource management (Wanous & Hudy, 2001). This is because this measure is more robust compared with the measure of overall job satisfaction, even though multiple-item scales are preferable to single-item measures in most situations (Wanous, Reichers & Hudy, 1997), 2) In a more recent study in another field, Bergkvist and Rossiter (2007) found that many marketing constructs consist of a concrete singular object and an attribute, and, therefore, a single-item measure is preferred. Together, this evidence lends credence to its application to the study.

Theoretical and Managerial Implications

This study provides useful insights and information regarding theoretical and managerial implications. Analysis using product indicated approach on Partial Least Squares showed that, in general, managers could use the information obtained by providing effective strategies and solutions to buffer the negative consequences of depressive symptoms on their subordinates' job satisfaction. The results also shed light on the importance of cultural embeddedness, in particular integrating, since it successfully buffers the negative consequences of depressive symptoms on job satisfaction. A few suggestions included more interventions designed improve employee job satisfaction targeting their interpersonal skills, work-life balance, and communication to reduce the vicious cycles of high psychological costs to the employees, and economic costs to the organizations.

Whilst this study did not confirm the moderating effects of cultural orientation, the findings suggested that dichotomy of horizontal and vertical collectivism have a different influence on the interactions between depressive symptoms and job satisfaction. This was proven when horizontal collectivism significantly strengthened the negative relationships of the direct effect relationship, while no significant results were found for vertical collectivism. Subsequently, this study makes a substantial contribution to the theory that the role of collectivism culture and the relationship between depressive symptoms and job satisfaction has not been well documented.

Despite its non-dyadic levels of analysis, this study suggests that the managers themselves should modify and exhibit transformational leadership, as transformational leadership is positively

associated with subordinates' job satisfaction (e.g., Allen & Meyer, 1990). The transformational leaders themselves are known to encourage and inspire their subordinates to think critically when solving such problems (Rahim, 2002). After all, successful future managers will most likely be those who continually strive to make their subordinates' work experience as satisfying and harmonious as possible.

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