Countering uncertainty – high-commitment work systems, performance, burnout and wellbeing in Malaysia

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Abstract

This study examines the effect of high-commitment work systems on firm performance, employee burnout and wellbeing, and the mediating role of organisation support and employee effort in Malaysia. Through a survey of 215 employees working in manufacturing firms, the results show that high-commitment work systems have a significant positive direct impact on firm performance and a significant negative effect on employee burnout, yet no significant positive effect on employee wellbeing. Organisation support partially mediates the effect of high-commitment work systems on burnout. Both employee effort and organisation support fully mediate the effect of high-commitment work systems on wellbeing. The paper contributes to an understanding of how high-commitment work systems increase performance and highlights the centrality of organisation support in the context of low-skill, highly intense production work.

Keywords: High-commitment work systems; Performance; Burnout, Wellbeing; Malaysia.

1. Introduction

Organisations build commitment via reciprocal employee relationships using high-commitment work systems (HCWS) (Ananthram et al., 2018; Chen et al., 2018). HCWS are defined as "the configuration of HR practices that value employees and build a relational environment in which employees are committed to the organisation" (Zhou et al., 2013: 266). The extant literature (c.f. Chen et al., 2018; Oppenauer & Van De Voorde, 2018) asserts that HCWS involve bilateral commitment between employees and organisations, which make HCWS more effective in predicting performance outcomes. Yet, studies on the effects of HR practices on performance are inconsistent (Tzabbar, Tzafrir, & Baruch, 2017; van Esch, Wei, & Chiang, 2018; Veth et al., 2019) suggesting that not all HR practices produce equal effects on firm performance and employees respond differently to such practices (Schmidt et al., 2018). Studies in Asia have focused predominantly on China (Chen et al., 2018; Chow et al., 2008; van Esch et al., 2018), and there remains a need to examine other Asian contexts (Fan et al., 2014; Farndale et al., 2017). While HCWS may lead to communal benefits there remains a need to examine the mechanics of the HRM–performance relationship (Chen et al., 2018) and the contextual shapers that influence the outcomes of these practices.

The paper examines the impact of HCWS on firm performance, employee burnout, and wellbeing in manufacturing firms in Malaysia. Peccei and Van de Voorde (2019) lament the tendency for research to consider happiness as a proxy for wellbeing, rather than examining other health-related wellbeing measures. We respond to this and consider happiness (wellbeing) alongside burnout and the potential tradeoffs therein. Further, the paper offers insights into the impacts of HCWS on low-skilled workers within high-intensity work situations and examines the role of employee effort and organisation support (in the form of flexible work practices) and their role in mediating the HCWS/performance relationship within a turbulent environment. These mediating variables are particularly pertinent as they test the assertion that HR systems are considered central in the Malaysian context (Juhdi, Pa'wan, Milah, & Hansaram, 2013), yet Malaysian employees exhibit a commitment to their workplace despite poor working conditions (Supian et al., 2020). Further, Malaysia and in particular its manufacturing sector, represents an interesting and under-researched context

with a British colonial heritage and collectivist, high power distance culture that embraces Anglo-Saxon HR practices (Cafferkey, Heffernan, Harney, Dundon, & Townsend, 2019; Gould-Williams & Mohamed, 2010).

Approximately 1.89 million people are employed in manufacturing firms across Malaysia, of which electronics and electrical is the largest sector (Department of Statistics, 2019). As the cost of living and inflation are expected to rise, low-skilled and low-paid manufacturing jobs are amongst the most vulnerable despite increases to minimum salaries (Murugasu, Wei, & Hwa, 2013; Sulaiman, Sanusi & Muhamad, 2020). Job insecurity remains a concern for these workers (Lee, Huang, & Ashford, 2018) who endure poor working environments and occupational hazards (Saedi, Majid, & Isa, 2019; Zein et al., 2019). Greater employment choices exist for those more qualified, and turnover remains a problem within the sector (Juhdi et al., 2013). Voluntary turnover creates uncertainty, higher costs, and impacts firm performance (Omar, Tajuddin, & Mohd, 2017) and uncertainty is an important shaper of wellbeing as it impacts a sense of optimism (Guest, 2017). HRM has, therefore, become a central concern in Malaysia (Cafferkey et al., 2019; Gould-Williams & Mohamed, 2010; Juhdi et al., 2013). The paper is structured as follows: first, the theoretical underpinnings of the paper are presented. Social exchange theory focuses on mutuality and HCWS are operationalized via the sense of reciprocity they create. The literature on HCWS and various outcomes is then discussed, including performance, burnout, and wellbeing. This is followed by an examination of the role of organisation support and employee effort in mediating HCWS outcomes. A range of hypotheses is presented throughout. The review is then followed by the research methods, data analysis and findings of the study. A discussion ensues alongside the implications for practice and limitations of the research and areas for further examination.

2. Literature review and hypotheses development

2.1 Social Exchange Theory

Unlike high-performance or high-involvement work systems, HCWS generate performance through psychological bonds between employees and organisations, producing work

environments where employees feel committed to working harder to achieve organisational performance (Boon & Kalshoven, 2014; Chen, Jiang, Tang, & Cooke, 2018). The more employees perceive they are being supported, the more likely it is that they will reciprocate that commitment (Chillakuri & Vanka, 2020; Detnakarin & Rurkkhum, 2019; Zhang, Akhtar, Zhang, & Rofcanin, 2019). HCWS offer autonomy, involvement, participation, and empowerment and contribute to job satisfaction and organisational performance (Park & Park, 2018). As such social exchange theory (SET) is central in theorising the HCWS-performance relationship (De Menezes & Kelliher, 2017; Ho & Kuvaas, 2020; Peccei & Van De Voorde, 2019). This exchange relationship is interdependent and contingent upon the action of the other party (Blau, 1964). Using a SET lens, employees perceive HCWS as an organisation's genuine commitment and recognition of their value. Reciprocity is induced by employees if they believe that their organisation is genuinely concerned about them (Iverson & Zatzick, 2007). Voluntary effort does not induce stress, burnout or deterioration in wellbeing and is caused by an internal drive leading to job satisfaction and performance (Franke & Schreier, 2010; Ollo-Lopez et al., 2010; Thoits & Hewitt, 2001). The effort exerted by employees to reciprocate the perceived benefits of HCWS creates a moral obligation and encourages positive attitudes and behaviours.

The perception of an incompatible/unbalanced exchange destroys a sense of fairness and leads to a withdrawal of organisational citizenship behaviours (OCBs) (Kim, Wright, & Su, 2010; McClean & Collins, 2011). Involuntary effort creates pressure leading to job strain, burnout, and depression. Employees perceiving an inequitable exchange under HCWS consider the obligation to reciprocate as work intensification, increased job demand, or work overload. SET suggests that employees who fail to receive the benefits they value decrease their effort, show withdrawal behaviours, engage in unethical behaviour, or may engage in involuntary effort to avoid negative repercussions. Such behaviour causes pressure and fatigue, leading to stress and a reduced sense of wellbeing (Sonnentag, & Zijlstra, 2006; Syrek, Apostel, & Antoni, 2013).

3.2 High-commitment work systems, performance, wellbeing, and burnout

HCWS are bundles of HR practices that signal a commitment to the employee (Xiao & Tsui, 2007, Chang et al., 2014) and aim to "get more from workers by giving more to them" (Baron & Kreps, 1999: 189). Organisations in Malaysia use productivity-linked wage systems, participation, multifunctional work teams, total quality management, decentralized training and development and supportive, mutual-based performance appraisals (Ismail, 2012; Omar et al., 2009). Manufacturing firms utilise performance-based pay, and employees are given intensive orientation and training often in the MNC home country (Wan, 2008; Ismail, 2013). The practices considered in this paper include *competence-based recruitment and selection* involving hiring candidates based on the quality of knowledge, skills, abilities and other characteristics that fit the organisation and are essential for firm productivity and performance (Kim & Ployhart, 2018). Organisations may develop an internal labor market, fostering the long-term development of employees (Chiang et al., 2014); *development-based training* establishes a long-term relationship and focuses on training to enhance performance in the current role and beyond (Park, Bae, & Hong, 2017) and is considered central to the exchange relationship in Malaysia (Supian et al., 2020); *performance-based compensation* focuses on internal promotion and motivates employees to work towards defined standards and outputs (Chen, 2018; Delery & Roumpi, 2017); *mutual-based performance appraisals* include upward appraisal and mutual engagement to ensuring that employees identify with the organisation (Lin & Liu, 2017); *empowerment-based employee relations* give employees opportunity to express their grievances, demand change and respond to managerial plans (Ali, Lei, & Wei, 2018; Wood & de Menezes, 2011).

HCWS shape positive perceptions of the HR system and social climate, and influence affective commitment, enthusiasm, and energy levels of individual employees improving innovation (Chen et al., 2018; Neves et al., 2018; Ogbonnaya & Messersmith, 2019). High commitment organisations provide supportive environments, flexible work design, and empower employees to make decisions about how they perform tasks (Chen et al., 2018). HCWS have a significant, positive relationship with firm performance, offering opportunities for involvement and participation, intensive training and development, and a range of

incentives (Peccei et al., 2013; Wood & de Menezes, 2011; Zhang & Morris, 2014). Such practices are central during turbulent times with firms employing HCWS more likely to use "employee-friendly downsizing strategies" and create supportive organisational climates (Detnakarin & Rurkkhum, 2019; Iverson & Zatzick, 2007: 472). Chen, Wang, and Fosh (2019) suggest that in contexts of uncertainty and where groups exhibit high collective psychological capital, HCWS continue to be related to firm performance and help employees view uncertainty as a challenge and growth opportunity. In Malaysia, formal, structured HR systems help reduce uncertainty and are central to the development of affective commitment and a reduction of turnover intentions (Cafferkey et al., 2019; Gould-Williams & Mohamed, 2010). This leads to the following hypothesis:

H1: HCWS are positively associated with firm performance.

SET suggests that there are mutual gains to be had from the application of HCWS, yet there are potential trade-offs between happiness (wellbeing) and burnout (Peccei & Van De Voorde, 2019). On the one hand, a greater systematisation of HRM has the potential to create more anxiety (Ho & Kuvaas, 2020). Such systems can lead to work intensification and feelings of exploitation and reduced contentment caused by an increased sense of pressure (Ogbonnaya & Messersmith, 2019; Oppenauer & Van De Voorde, 2018). Employees may experience a loss of work-life balance and may not invest in innovative behaviour despite high commitment levels (Chen et al., 2018). On the other hand, a climate for wellbeing encourages organisational commitment, reduces the need for recovery, and fosters trust, cooperation and an internalisation of values (Cooper, Wang, Bartram, & Cooke, 2019; Veld & Alfes, 2017). In China, high-performance bundles of HR practices impact creativity and wellbeing and the experience of HCWS was found to mediate the relationship between the application of HCWS and psychological safety (Miao & Cao, 2019; Zhang et al., 2019). HCWS manufacture commitment and those who trust their employer experience high levels of wellbeing, especially when they perceive the presence of high-performance practices (Alfes, Shantz, & Truss, 2012). Employees who enjoy their work and attain satisfaction from

doing meaningful jobs tend to experience less emotional burnout and more feelings of achievement leading to greater levels of psychological wellbeing (Ananthram et al., 2018; Kröll, & Nüesch, 2019). There is little evidence to suggest that committed employees in environments deploying high-performance systems experience detrimental impacts on overall wellbeing (Meijerink, Bos-Nehles, & de Leede 2018; Meyer & Maltin 2010). Indeed, employees who gain satisfaction from their work can experience positive health benefits (Yousaf, Sanders, & Yustantio, 2018). Work systems involving teamwork and offering bilateral benefits generate feelings of psychological commitment and employee confidence (Schopman et al., 2017). Manufacturing jobs are typically intense and physically demanding (Locke & Samel, 2018) and the use of HCWS empowers employees to achieve and sustain good performance (Zahari & Zakuan, 2016). Empowered employees tend to experience low burnout and less pressure and scrutiny from supervisors and receive recognition for good work (Schermuly, Schermuly, & Meyer, 2011). This leads to the following hypotheses:

H2: HCWS are negatively associated with employee burnout.
H3: HCWS are positively associated with employee wellbeing.

3.3 The mediating roles of organisation support and employee effort

HCWS may foster organisational performance, reduce burnout, and add to a sense of wellbeing (Miao & Cao, 2019) but they operate through flexible work practices (organisation support). Flexible work arrangements help ensure wellbeing, foster commitment, and enable workers to balance their home and work lives (De Menezes & Kelliher, 2017; Guest, 2017). Chen et al. (2018) stress the importance of reducing perceived conflict between home and working lives to encourage innovative behaviour. Yet, the emphasis rests on employers matching employee workloads to revised hours (Kotey & Sharma, 2019). De Menezes and Kelliher (2017) and Kröll and Nüesch (2019) suggest that when employees have discretion over when and how they work, they experience greater job satisfaction. In manufacturing, flexitime enables employees to structure their work within core hours and helps them overcome problems associated with the physical demands of manufacturing jobs, providing

time to recover (Chen et al., 2019; Topcic, Baum, & Kabst, 2016). Further, in insecure and uncertain environments where employees fear for their jobs, flexible working helps to bolster morale and encourage a sense of optimism that is central to the quality of working life (Grote & Guest, 2017; Guest, 2017). Positive attitudes can lead to employee performance and are central to the social exchange inherent within HCWS: the more employees feel supported, the more positive their responses become (Detnakarin & Rurkkhum, 2019; Schopman et al., 2017), thus raising the following hypotheses:

H4a: Organisation support mediates the effect of HCWS on firm performance.
H4b: Organisation support mediates the effect of HCWS on burnout.
H4c: Organisation support mediates the effect of HCWS on wellbeing.

The positive effect of HCWS on firm performance depends on *how* employees and organisations enact their roles. HCWS operate on the premise of valuing employees, focusing on long-term relationships, and developing psychological bonds that nurture performance via engagement and commitment (Chiang et al., 2014). The effort is a function of time commitment and work intensity, i.e., working hard (Brown & Leigh, 1996: 361). Employees can exert more effort in mutually beneficial environments (McClean & Collins, 2011). Committed employees tend to experience lower absenteeism and turnover intentions and perform well at work and willing to accept demands for greater production (Liu et al., 2019). McClean and Collins (2011) assert that employee effort *mediates* and contributes to organisational performance. Those organisations deploying HCWS provide positive work cultures and value employee involvement, offering a platform for employees to be creative (Chen et al., 2018). The effort exerted by employees is voluntary, and when combined with HCWS, employees are more likely to experience a moral obligation to expend their effort. Such action is positively associated with job satisfaction, a sense of personal worth, and lower levels of burnout (Bos-Nehles & Meijerink, 2018; Liu et al., 2019). In manufacturing firms and in contexts of uncertainty, employees performing physically intense jobs may choose to forgo OCBs. Yet, employees who feel valued and trusted will still be willing to

contribute to the organisation and exert more effort to accomplish desired outcomes (Chen et al., 2019), suggesting the following hypotheses:

H5a: Employee effort mediates the effect of HCWS on firm performance.

H5b: Employee effort mediates the effect of HCWS on burnout.

H5c: Employee effort mediates the effect of HCWS on wellbeing.

Figure 1 shows the hypothesized links in the study's conceptual framework.

Insert Figure 1

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4. Method

4.1 Sample and data collection

Data were collected from workers in manufacturing firms located in the northern part of Malaysia, covering Penang, Perak, and Kedah. The workers represented one-third of the manufacturing workers in Malaysia. In total, 500 questionnaires were distributed, and only 215 were returned and usable amounting to 43% total response rate. In total, 28 responses were removed from the dataset for having high social desirability effect (SDE) scores, thus avoiding problems of common method bias (CMB). The demographic profile of the respondents is shown in Table 1.

Insert Table 1

4.2 Measures

All items used were taken from well-established studies. Variables were measured using seven-point Likert scales (1 = "strongly disagree" to 7 = "strongly agree"). The measurement of the study constructs, along with the exact wording of the questions, and their sources are reproduced in the Appendix.

High-commitment work systems: The manufacturing worker experience of HCWS was measured using the scale developed by Sing (2004). These items focus on commitment-based HR practices. Workers rated the use of five HR practices – competence-based recruitment and selection, development-based training, performance-based compensation, mutual-based performance appraisals, and empowerment-based employee relations practices in their firms. The reliability (α) for this construct is 0.90.

Firm performance: This was measured using items developed by Gates and Langevin (2010). This measurement assesses subjective firm performance as perceived by employees, including productivity rate, improvement in sales, ability to sustain profit, product/service quality, the opportunity for growth and development, and turnover rate (α=0.83).

Burnout: This construct was measured using items adapted from the Maslach's Burnout Inventory (Maslach et al., 1996). The items measured respondents' feelings of burnout as a result of their work (α=0.86).

Wellbeing: The measurement for wellbeing was modified from the General Health Questionnaire's (Bun Cheung, 2002) original items. This measurement assesses respondents' positive feelings related to work and life activities (α=0.86).

Organisation support: This construct was measured using items modified from Hayman (2009). These items assess the availability of organisation support as perceived by workers (α=0.72).

Employee effort: This variable was measured using constructs developed by Brown and Leigh (1996) and McClean and Collins (2011). The reliability of this construct is 0.91.

Social desirability effect (SDE): The SDE was measured using the scale developed by Crowne and Marlowe (1960). A true-false scale format was used where the respondents were asked to indicate their belief on a set of thirteen statements (α=0.83).

Control variables: The study controlled for four employee-level variables – age, education, gender, and position, and two firm-level variables – size, and industry. The selection of control variables was based on previous studies of firm performance (Baer & Frese, 2003) and employee wellbeing (Oppenauer & Van De Voorde, 2018*).*

At the firm level, the size and industry of the firms are two control variables used in widely in research related to firm performance (Marinova, Plantenga & Remery, 2016). According to Schmidt, Pohler, and Willness (2018), large-size firms may have more sophisticated HR systems, thus may have more influence on firm performance. Similarly, certain industries are likely to make greater investment in HR systems and HCWS, which could lead to a more significant impact on firm performance (Greer, Carr, & Hipp, 2016).

At the employee level, control variables of age, gender, education, and position can potentially confound the effects of HCWS on work outcomes of performance, wellbeing, burnout, employee effort, and organisation support. Specifically, younger employees may react differently to uncertainty conditions and may experience more burnout and lower wellbeing than their senior counterparts (Kooij et al., 2013). For employees with higher education, economic turmoil may not affect them as badly as those lower educated employees (Hitka, Kozubíková, & Potkány, 2018). They may adapt better to burnout and wellbeing deterioration (Hahn & Truman, 2015). In terms of gender, men may cope better with burnout and wellbeing issues than women in physically demanding jobs within uncertainty contexts (Purvanova & Muros, 2010).

Firm size was measured by a categorical variable of 0 and 1 representing large versus small firms. Within the Malaysian context, firms with equal or more than 200 workers are considered small and medium-sized enterprises, and those with fewer than 200 workers are considered large-size firms (Ismail, 2012). As for the firm industry, a dichotomous variable

was used to represent technology-intensive manufacturing industries versus resource-intensive manufacturing industries.

In testing the effects of employee age, a dummy variable of 0 was used representing young (i.e., 18-34 years old) and 1 denoting mature (i.e., 35 years old and above) employees. For education, a dummy variable was created where 0 indicates a low level of education (i.e., Malaysian certificate and diploma or equivalent), and 1 indicates a high level of education (i.e., bachelor's degree and above). Dummy variables were used to measure both gender and position, a dummy variable of 0 signifies female and production-level employees, and 1 represents male and managerial-level employees. The managerial-level consists of first-line and medium-line managers, excluding high-level managers.

4.3 Data analysis

This study utilizes structural equation modeling (SEM) using AMOS to test the main statistical relationships between HCWS and firm performance, employee burnout, wellbeing, and the mediating effects of organisation support and employee effort. SEM uses a two-step approach involving scale validation of the measurement model and structural path analysis. In the scale validity assessment, the goodness-of-fit statistics, convergent validity (e.g., AVE and CR), and discriminant validity were performed to determine the psychometric properties for the measurement model of the constructs under study. In the structural path analyses, the direct effect of HCWS on firm performance, employee burnout, and wellbeing were tested using the goodness-of-fit statistics. A bootstrapping procedure using AMOS was run to test the mediating effects of the study.

4.4 The scale validation of the measurement model

During the scale validation stage, confirmatory factor analysis was performed where all six constructs under study were co-varied and ran simultaneously to check their goodness-of-fit. The result showed a good model fit to the data (χ^2=584.74; degrees of freedom [*df*]=279; χ^2/df=2.10; TLI=0.90; CFI=0.92; RMR=0.06 and RMSEA=0.07). Table 2 presents the results of convergent validity. Composite reliability (CR) and average variance extracted (AVE),

which measure the convergent validity of the constructs, also exhibit satisfactory results, as most studies used the threshold values of 0.70 and 0.50 for CR and AVE, respectively (Su, Guo, & Sun, 2017).

Insert Table 2

The discriminant validity of each construct was tested. Table 3 shows the results of discriminant validity analysis where all squared roots of AVEs indicate higher than the correlation for other constructs, confirming the validity of the constructs.

Insert Table 3

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5. Results

Table 4 shows the means, standard deviations, and correlations of each variable. HCWS demonstrate significant correlations with firm performance, employee burnout, wellbeing, organisation support, and employee effort, suggesting the criticality of HCWS to performance outcomes in manufacturing firms. The insignificant results of the correlation between SDE and all variables suggest that SDE has little impact on the findings. No multicollinearity issues were detected as the variance inflation factors' (VIF) values were all below two.

Insert Table 4

5.1 Hypotheses testing using structural equation modelling

The hypotheses were tested using structural path analysis performed in AMOS. The result of structural model analysis indicates a satisfactory model fit to the data (χ^2=505.74, χ^2/df=1.95, TLI=0.92, CFI=0.93, RMR=0.07, and RMSEA=0.06). The R-square of the specified model explains 54% of the variance in the performance outcomes' total variance.

Table 5 shows the results of the study's direct relationships. HCWS have a significant positive impact on firm performance (β=0.76, p<0.01), confirming H1. There is a significant negative relationship between HCWS and employee burnout (β=-0.33, p<0.01), supporting

H2. However, HCWS have a negative effect on employee wellbeing (β=-0.26, p<0.01), which contradicts H3.

Insert Table 5 here

5.2 Testing mediation hypotheses using a bootstrapping procedure

A bootstrapping procedure was performed to test the proposed mediation effects. Table 6 shows that there are no mediation effects of organisation support and employee effort on the HCWS–firm performance relationship (H4a and H5a). HCWS have a direct relationship with firm performance. However, organisation support was found to partially mediate the effect of HCWS on employee burnout (H4b) and fully mediate the effect of HCWS on employee wellbeing (H4c). Including organisation support as a mediator, the impact of HCWS on employee wellbeing changes from an initially negative to a positive one. Organisation support plays a significant role in shifting the effects of HCWS on employee wellbeing. In contrast, employee effort was found not to have any mediation effect on both HCWS-firm performance (H5a) and HCWS-employee burnout relationships (H5b) but a full mediation effect on HCWS and employee wellbeing relationship (H5c). By adding employee effort as a mediator, the impact of HCWS on wellbeing changes from a negative to a positive relationship.

Insert Table 6

At the firm level, size and industry were the only control variables that indicated a significant negative relationship with organisation support and employee effort. Firm size was found to relate negatively to employee effort (β=-0.14, p<0.05). Employees in large firms seem to exert less effort than their counterparts in SMEs. The firm industry shows a significant negative relationship with organisation support (β=-0.17, p<0.05), and employee effort (β=-0.23, p<0.01). Technology-intensive manufacturing firms have lower Organisation support and lower employee effort than those in resource-intensive manufacturing industries. At the individual employee level, only age and education were found to have significant negative relationships with firm performance (β=-0.26, p<0.01) and burnout (β=-0.20,

$p<0.05$), respectively. Therefore age, gender, position, and education do not have confounding effects on the relationships between HCWS, wellbeing, burnout, organisation support, and employee effort. Younger employees have more impact on firm performance than older employees, and employees with a lower level of education seem to experience more burnout than those with a higher level of education.

6. Discussion and conclusion

HCWS are central in developing commitment-based relationships within manufacturing firms and become more fundamental in low-skilled and intense work in uncertain environments. The Malaysian context provided a suitable location for this study as the problems associated with government and economic policy, high redundancy costs, limited labour rights, work intensification, and increasing living costs suggest that HCWS provide differentiation where competition for labour is high. This paper makes an important contribution in its examination of burnout *as well as* wellbeing and therefore distinguishes between happiness and health (Peccei & Van De Voorde, 2019). Further, the paper makes a key empirical contribution via the insights it offers on the application of HCWS in the context of low-skilled workers in insecure, high-intensity manufacturing jobs.

Consistent with previous studies (c.f. Peccei et al., 2013; Zhang & Morris, 2014; Mostafa et al., 2019), this study found a positive and significant relationship between HCWS and firm performance (H1). HCWS encourage performance via bonuses and overtime work, for low-skilled/paid and insecure employees. Younger workers appeared less conscious about the adverse health and wellbeing impacts of their work (Currie et al., 2009), but were more concerned with generating income and benefits to improve their economic status and cope with rising living costs. This was irrespective of employee effort and organisation support, corroborating Juhdi et al. (2013) on the importance of compensation in predicting organisation commitment. HCWS act as a signal and set employee expectations regardless of whether employees feel passionate and driven to achieve. Supian et al. (2020) suggest that the Malaysian workforce remains committed to their organisations despite poor working

conditions, as such a work environment with a developed set of commitment-inducing practices may be good enough to sustain performance.

The negative effect of HCWS on burnout (H2) highlights the centrality of commitment-based systems in helping employees cope with job pressure (c.f. Kang & Kang, 2016; Meng et al., 2019). Mutual commitment and trust will reduce the burden of employees' emotional and physical burnout (Whitener, 2001). Yet, contrary to Fan et al. (2014), HCWS' impact on wellbeing, while not significant, was negative (H3). The Malaysian workforce responds well to the structured nature of HRM (Gould-Williams & Mohamed, 2010), but the more HR measures are in place, the more regulated the workplace might feel. This corroborates assertions that the systematisation of HR via HCWS has the potential to create anxiety, pressure, and feelings of exploitation (Ho & Kuvaas, 2020; Ogbonnaya & Messersmith, 2018; Oppenauer & Van De Voorde, 2018). The lack of support for H3 is also perhaps more relevant to low-skilled, over-worked employees within a context of insecurity. Since employees in the manufacturing firms are mostly young production workers, their commitment to earning more money through working longer hours detracts from their work-life balance, impacting feelings of happiness. Thus, while HCWS may be able to counter the impacts of burnout they do not necessarily contribute to a sense of wellbeing when considered in isolation (Chen et al., 2018; Wood & de Menezes, 2011).

The effects of HCWS on wellbeing are, however, fully mediated by organisation support (H4c), those flexible work arrangements that provide a range of benefits, non-stigmatising flexible work programmes and teleworking. Thus, organisation support is focused on how work and rewards are organised and takes into account the balance between work and personal lives. Such support is central in connecting HCWS to wellbeing and improving the quality of working life (Grote & Guest, 2017; Guest, 2017). However, that organisation support only partially mediates the impact of HCWS on burnout (H4b) suggests that flexible work practices help employees recover from physical fatigue but that HCWS themselves foster the internalisation of organisational goals and encourage a value-based alignment via practices such as training and development, performance feedback and various involvement mechanisms (Chen et al., 2018; Iverson & Zatzick, 2007).

While the flexible practices of organisation support play a key role in employee outcomes, it is not required for the positive effect of HCWS on performance to hold. Good compensation packages, effective training, and development, performance appraisals, recruitment processes that assess person/organisation fit, and voice mechanisms provide enough motivation for low-paid employees working in uncertain and insecure environments to perform and earn more rewards. Contrary to McClean and Collins (2011), our findings suggest a direct, positive relationship between HCWS and firm performance. Employee effort fails to mediate the effect of HCWS on firm performance (H5a). In manufacturing firms where jobs are already physically demanding, employees have already exhausted their resources to exert further effort. Expending extra effort jeopardises the ability to cope with adverse situations (Westman, Hobfoll, Chen, Davidson, & Laski, 2004). This helps to explain the lack of support for H5b, as employee effort either voluntarily or involuntarily may further deplete energy resources. The need to exert more effort is akin to involuntary or forced effort.

However, support for H5c suggests that employee effort plays a significant role in strengthening the effect of HCWS on wellbeing. Among manufacturing workers, HCWS empower employees and develop a sense of trust, job-control, and intrinsic motivation making employees feel valued. As SET suggests, low paid, intense work environments can benefit from ceding control and offering empowerment to workers to augment their sense of value. Those employees who feel passionate about their work and who internalize the values of their workplace will have a better chance of developing a sense of wellbeing.

6.1 Managerial implications

The implementation of HCWS within a low-skilled, intensive working environment requires commitment from all stakeholders. When employees perceive a lack of mutual commitment, they may sense the exploitation of their vulnerability. Such perceptions damage morale and the motivation to reciprocate. The compensation and benefits offered for this group of workers within manufacturing may not align with the effort expended. Weak job security, work intensification, increasing living costs, and uncertain economic conditions undermine perceptions of the mutual benefits of HCWS. As such, managers should place a premium on

organisation support, those practices that encourage flexible working and flexible rewards in order to ingrain the commitment values of the organisation and cede a degree of control to workers over their working lives. While the sample characteristics are biased towards male production workers, with lower levels of education, working in large-sized organisations in technology-intensive industries, work and shift structures might be reorganised to ensure core working hours, and the provision of development opportunities that might help to multiskill and move workers around the organisation, increasing flexibility, reducing the likelihood of fatigue and potentially introducing teleworking if the position allows. While workers might work long hours to earn more money, the implementation of flexible reward schemes should allow employees to choose their benefits and align them with their own life situations. Thus, the managers need to provide some control, flexibilities and empowerment to employees doing low-paid jobs in physically demanding working conditions to boost their mutual commitment in the spirit of HCWS and help reduce the effects of burnout, improve employee wellbeing and enhance performance.

6.3 Limitations and future research

While this study provides valuable insight into the effects of HCWS on performance outcomes, the study is not without its limitations. This study uses single-respondent, cross-sectional data from manufacturing workers, and thus may lead to potential CMB. Although we have addressed the possibility of CMB by using the SDE test and discarding the data with high SDE, several other procedural treatments, such as collecting data from multiple sources or conducting a longitudinal study should be considered. Further studies should examine HCWS in diverse contexts and include a range of HR measures in addition to those included in this study. HCWS tend to comprise a range of practices that may on the surface appear similar, but their meaning and the way they have implemented shifts according to each organisation. Further, the small sample size might restrict the usability and generalisation of the findings to all low-skilled manufacturing workers within contexts of uncertainty. Further studies might incorporate larger sample sizes.

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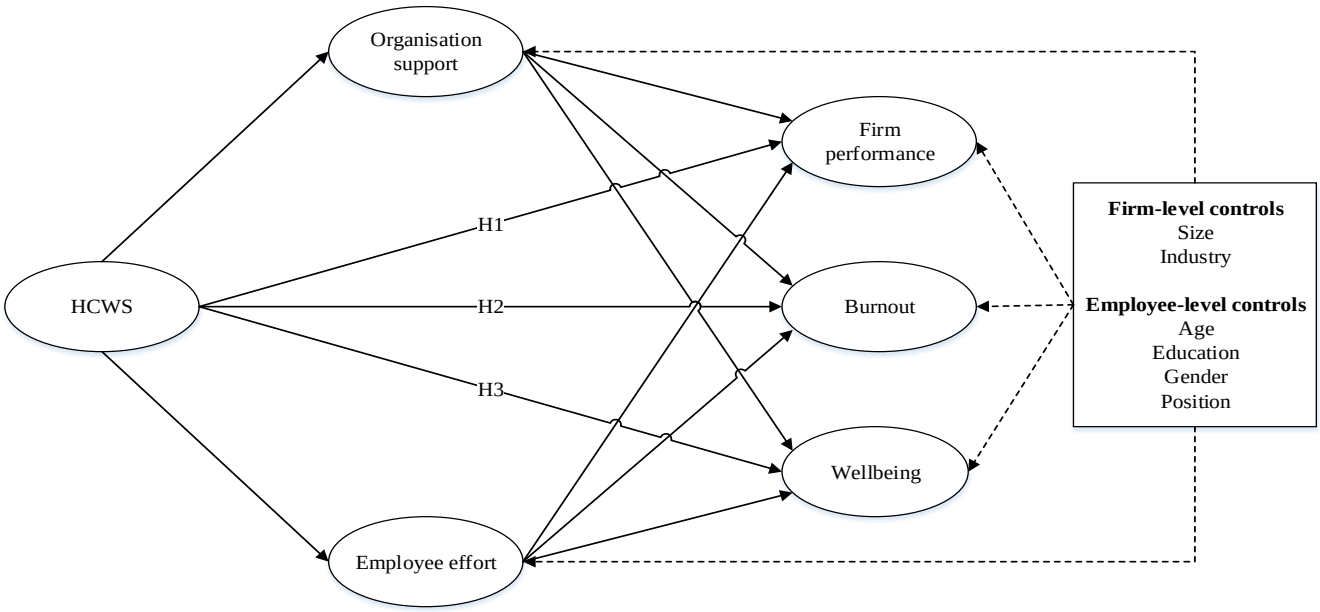

H4a: HCWS → Organisation support → Firm performance
H4b: HCWS → Organisation support → Burnout
H4c: HCWS → Organisation support → Wellbeing

H5a: HCWS → Employee effort → Firm performance
H5b: HCWS → Employee effort → Burnout
H5c: HCWS → Employee effort → Wellbeing

Figure 1: Conceptual framework

Table 1: Summary of the characteristic of the respondents

Characteristics	Categories	Percentage
Individual-level		
Gender	Male Female	79.0 21.0
Age (years)	18-24 25-34 35-44 45 and above	33.1 44.7 12.6 10.2
Position-level	Production Managerial	65.6 34.4
Position-status	Full-time Part-time	73.5 26.5
Education	Malaysian certificate (SPM) Diploma/equivalent Bachelor degree Master degree	57.7 24.2 14.9 3.3
Firm-level		
Size	Small Large	11.2 88.8
Industry	Manufacturing-based Resources & high-technology intensive	70.2 29.8

Table 2: Convergent validity

Constructs	AVE	CR
1. Firm performance	0.72	0.84
2. Wellbeing	0.68	0.86
3. Burnout	0.68	0.86
4. HCWS	0.72	0.97
5. Organisation support	0.56	0.72
6. Employee effort	0.78	0.92

Note:
AVE=Average variance extracted; CR=Composite reliability

Table 3: Discriminant validity

Constructs	1	2	3	4	5	6
1. Firm performance	**0.85**					
2. Wellbeing	0.10	**0.82**				
3. Burnout	-0.25	-0.13	**0.82**			
4. HCWS	0.65	0.17	-0.29	**0.85**		
5. Organisation support	0.34	0.05	0.05	0.47	**0.75**	
6. Employee effort	0.53	0.04	-0.17	0.66	0.40	**0.88**

**Note: ***Values on the diagonal (bolded) are square root of the AVE while off-diagonals are correlations.

Table 4: Descriptive statistics and correlations

Constructs	Mean	SD	1	2	3	4	5	6	7
1. Firm performance	4.52	0.83	1						
2. Wellbeing	2.60	0.74	0.10	1					
3. Burnout	4.12	1.16	-0.25*****	-0.13	1				
4. HCWS	4.53	0.75	0.65*****	0.17*****	-0.29*****	1			
5. Organisation support	4.36	1.17	0.34*****	0.05	0.05	0.47*****	1		
6. Employee effort	5.09	0.89	0.53*****	0.04	-0.17*****	0.66*****	0.40*****	1	
7. Social desirability effect	0.54	0.15	0.04	0.04	0.01	0.07	-0.09	-0.01	1

Note: SD=Standard deviation
*****p<0.05 (Two-tailed)

Table 5: Result of path coefficients of direct relationships

Hypothesis	Relationship	Beta	SE	C.R.
H_1	HCWS → Firm performance	0.76*	0.11	7.98
H_2	HCWS → Burnout	-0.33*	0.13	-3.87
H_3	HCWS → Wellbeing	-0.26*	0.09	-3.24

**Note: ***p<0.01 (Two-tailed)

Table 6: Results of mediating relationships

Hypotheses	Direct effect without mediator (x→y)	Direct effect with mediator (x→m→y)	Indirect effect	Result
H4a: HCWS → Organisation support → Firm performance	0.76**	0.80**	-0.05	Not supported (No mediation)
H4b: HCWS → Organisation support → Burnout	-0.33**	-0.58**	0.37**	Supported (Partial mediation)
H4c: HCWS → Organisation support → Wellbeing	-0.26**	-0.44**	0.20**	Supported (Full mediation)
H5a: HCWS → Employee effort → Firm performance	0.77**	0.74**	0.03	Not supported (No mediation)
H5b: HCWS → Employee effort → Burnout	-0.32*	-0.38*	0.08	Not supported (No mediation)
H5c: HCWS → Employee effort → Wellbeing	-0.26**	-0.46**	0.20*	Supported (Full mediation)

**Note: ***p<0.05, ******p<0.01 (Two-tailed)