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## **Psychosocial safety climate and burnout among academicians: the mediating role of work engagement**

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**Abstract:** As Malaysian universities are moving towards world-class research universities, academicians are now more vulnerable to burnout. Hence, a literature review related to burnout is done on full-time academicians who have worked more than one year in Malaysian research universities, and psychosocial safety climate (PSC) is found useful in this context as it is a precursor to working conditions including job demands and in turn, burnout and work engagement through mediation pathway. This paper proposes a better job design by PSC through challenge job demands and hindrance job demands which could enhance the work engagement of academicians while minimizing their level of burnout. Hence, in-depth PSC context proposed for the rewarding job demands and reduce the burnout level of academicians via the mediation of work engagement. Therefore, PSC could offer a useful tool to help in the change of management practices of research universities and in turn academicians' health and well-being.

**Keywords:** research universities; burnout; job demands; psychosocial safety climate; PSC; work engagement.

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## **1 Introduction**

In the recent years, Malaysian public universities are transitioning towards becoming world-class research universities (RU) whereby the component of research and publication are progressively seen as a vital aspect and vanguard of an entity as part of the Accelerated Program for Excellence (APEX) initiative by the Malaysian Ministry of Higher Education. RU has become one of the important strategies for the government to move the entire nation towards the knowledge-based industrial nation to attain greater prosperity (Ramli et al., 2013). In 2006, the Malaysian government awarded four public universities with RU status in Malaysia, namely Universiti Malaya (UM), Universiti Kebangsaan Malaysia (UKM), Universiti Sains Malaysia (USM) and Universiti Putra Malaysia (UPM). Another public university, Universiti Teknologi Malaysia (UTM) was also appointed as RU in 2010 (MOHE, 2017b).

The formation of RU has enhanced the quality of research outcomes mainly because of the competitiveness among them for acquiring external fund to finance their research projects (Ramli et al., 2013). As a result, the measure of performance has turned into an agenda item in the higher learning institutions due to limited individual and institutional resources, increasing competitive pressure and higher demand for universal access. This need for greater improvement and accountability created the new key performance index (KPI), hence placing academicians under new stress. Besides, the purposes of RU in delivering the new KPI are to enhance the activities of research, development and commercialisation, increase the number of post-graduate and post-doctoral students, increase the number of academicians with Ph.D degree, increase the number of foreign students, strengthen the centres of excellence as well as improve the ranking of higher learning institutions in Malaysia (MOHE, 2017b). Another purpose of having new KPI for RU is also the long-term strategy of the Malaysian Higher Education Institution to stay in line with the aim of putting RU in the top 100 universities in world university

ranking. Consequently, academicians are confronted with combating demands between the projection of RU and personal motivation of academicians for career advancement as well as the dedication for the profession.

Furthermore, higher education in many countries is in transition to recent changes that placed more mental, technical, and emotional pressure on academic personnel (Byrne et al., 2013). Hence, academicians are exposed to different types of stressors which contribute to the development of burnout like symptoms that impact their work and performance (Unterbrink et al., 2012). The universities are now contending with each other to achieve better ranking in attaining a fantabulous university in the country and indirectly pushing the academicians to boost up their performances to achieve this goal. Nonetheless, in order to maintain RU status, the aims to be attained are broken down to the academics based on the targets set by the Malaysian Research Assessment (MyRA). The higher standards established in an RU imply that the criteria for promotion become stricter and KPI appointed to each academician is also more demanding. Setting high standards and striving to achieve those standards may create additional stress among academicians in this pursuit of excellence. Academicians could suffer from a potential downside, which is burnout over the long run.

Psychosocial safety climate (PSC) is focused in this paper because it is believed that PSC plays as a leading indicator of a better working environment by providing manageable demands and a high level of resources to cope with demands at work (Bond et al., 2010; Dollard and Bakker, 2010; Dollard et al., 2012; Law et al., 2011). Yulita et al. (2014) found that PSC is directly correlated with positive job demands, where a job is made more challenging with the application of PSC. On the other hands, job demands which are defined as the aspects of work that required sustained physical, cognitive and emotional effort to fulfil the work tasks (Demerouti et al., 2001) play a significant role to reduce the burnout of RU academicians. However, job demands are not necessarily negative. Cavanaugh et al. (2000) suggested that job demands should be differentiated into challenge demands and hindrance demands so that further researches relating the way these demand types create different processes via which PSC influences burnout are established. Moreover, Crawford et al. (2010) indicate that both challenge and hindrance demands influence the work engagement among the employee differently. According to Van den Broeck et al. (2010) challenge demands, which act as worthwhile work experiences preparing chances for personal development, are positively correlated with work engagement. Meanwhile, hindrance demands, which play as barriers to personal development or demands that prevent an individual to attain the valued targets, are negatively related to work engagement (Van den Broeck et al., 2010). In conjunction with that, the types of job demands need to be identified accordingly in the workplace so that a better work engagement is promoted, which in turn a lower level of burnout is achieved among the RU academicians (Hultell and Gustavsson, 2010). Hence, the present researchers take the call by investigating the influence of PSC on two types of job demands, namely challenge demands and hindrance demands. In addition, the effects of both type demands on burnout through the mediation pathway of work engagement are also inspected.

Furthermore, a key indicator to serve as an alert for management or policy maker is the job design for the academic staffs in RU so that they can distinguish the way challenge demands bring the success and satisfaction while avoiding hindrance demands which could demotivate them in their work and turn to burnout. However, there is limited

research on burnout within higher learning institutions (Henny et al., 2014). Besides, a systematic review of burnout in university teaching staff pointed that there is a lack of studies across universities on burnout among academicians in Malaysia even though the academic staff is the fundamental asset of any institutions (Watts and Robertson, 2011). Hence, the present researchers intend to examine a study of PSC relating its effects on burnout of RU academic staff so that a healthier and productive job design is guaranteed through the two types of job demands, which are challenging demands and hindrance demands. Therefore, the present study proposes work engagement can be a potential mediator in the relationship between PSC and burnout among the RU academicians. To further examine our proposed theoretical framework, how work engagement mediates the above relationship is analysed.

## 2 Literature review

### 2.1 Burnout

Burnout refers to a symptom of emotional exhaustion, depersonalisation, and reduced personal accomplishment, which are undergone by employees who regularly in touch with other personnel such as those engaged with teaching, social work and well-being management (Maslach et al., 1996). Harrison (1999) stated that burnout is indeed a mode of mental, emotional and physical exhaustion deriving from permanent engagement in work-related events that are extravagantly challenging.

### 2.2 Burnout among academicians in Malaysian research universities

The days when the academic community was perceived as a low-stress working environment are over. The prevalence of occupational stress among academic staffs is inclining in developed and developing countries. The job demands are not only in teaching but also include consulting, doing research, publications and even administrative work. Darabi et al. (2016) found that increment in the administrative workload, obtaining research funding increasing student numbers and having less time with students are all significant factors of stress for academics.

As Malaysian universities are moving towards becoming world-class RU, a few specified KPIs must be achieved by each RU, especially in publishing two papers in national or international refereed and cited journal every year by each academic staff as well as obtaining research grant of RM 50,000 for each academic staff per year which at least 20% from international sources and 20% from private sector (MOHE, 2017b). Besides, MOHE in the year 2017 had requested all Malaysian RU to turn the university research into direct advantages for the society through leading great challenge agenda and sustainable advancement goals. Therefore, there will be some alliances among Malaysian RU and other higher learning institutions for the matters of food and water safety, good health and well-being as well as climate change. These partnerships are expected for knowledge assimilation and variety of source for research funding (MOHE, 2017a). Consequently, Malaysian RU academicians are now facing higher stress in coping with their job demands and this leads them more vulnerable to burnout (Henny et al., 2014).

Furthermore, it is demonstrated in the 2019 QS World University Ranking that the five Malaysian RU, namely UM, UKM, UPM, USM, and UTM are in the world ranking of 87, 184, 202, 207, and 238 respectively. As a consequence, the academicians from these RU are in the risk of burnout due to the need in fulfilling the KPI where all Malaysian RU are ultimately to be in the top 100 universities in world university ranking. Hence, the mechanisms in reducing the prevalence of burnout for RU academicians due to stress from job demands need to be found so that the quality of teaching and high job commitment as well as paving the way for the universities to transit towards a world-class RU can be ensured.

### *2.3 Psychosocial safety climate*

PSC is a shared viewpoint among academicians pertaining to policies, practices and procedures inside their institutions that particularise to psychological health and well-being (Dollard and Bakker, 2010). Empirical evidences exhibited that PSC is a precursor of work-related stress determinants in multilevel analyses employing both cross-sectional (Law et al., 2011) and longitudinal (Bond et. al., 2010; Dollard and Bakker, 2010; Dollard et al., 2012) designs. Based on these studies, PSC is shown to be a valuable protocol of an enhanced working condition boosting the use of feasible demands and a raised level of resources to manage the duties at work.

### *2.4 Challenge demands*

Challenge demands represent the job demands which are viewed by RU academicians as rewarding work experiences that provide a chance for personal growth (Cavanaugh et al., 2000). For example, high job responsibility, job intricacy, workload, and time pressures may escalate strain levels, but they may also build up personal advancement, innovation and creativity (LePine et al., 2005; Cavanaugh et. al., 2000).

### *2.5 Hindrance demands*

Hindrance demands are the job demands which are perceived as obstacles to personal development or demands that interfere with or hinder RU academician's ability to attain valued goals (Cavanaugh et al., 2000). For instance, bureaucratic rules, conflict, job insecurity and organisational tactful (Cavanaugh et al., 2000) may lower down personal attainment and promote detrimental implications such as anger, anxiety and undermining (Rodell and Judge, 2009), as well as disengagement attitude and finally turnover (Podsakoff et al., 2007).

### *2.6 Work engagement*

Work engagement refers to a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication, and absorption among RU academicians (Schaufeli et al., 2002). The existence of these three factors yields engaged employees who possess high levels of energy and are fully immersed in and enthusiastic about their work.

### *2.7 Relationships among burnout, challenge demands, hindrance demands, work engagement and PSC*

Demerouti et al. (2001) claimed that burnout occurs when job demands are high, and job resources are limited. They further stated negative working conditions could lead to energy depletion and eventually weaken employee motivation. Occupation in the service sector such as RU academician will experience burnout in two symptoms, namely exhaustion due to high job demands and disengagement due to circumscribed job resources. Furthermore, it is claimed that job demands are positively correlated with burnout (Adil and Baig, 2018; Brough et al., 2013; Hakanen et al., 2006; Schaufeli and Bakker, 2004), where an employee is at high risk of burnout if he does not cope with the job demands effectively and successfully within the allocated time period. However, it is argued that job demands are not inevitably negative to all employees as long as one is able to restore accordingly when enormous efforts are needed to comply with the job demands (Montgomery et al., 2015). In the meantime, work engagement on the whole is claimed to be directly inversely of burnout on the whole (Hultell and Gustavsson, 2010; Schaufeli and Bakker, 2004). It is further explained that an employee tends to be engaged with his work where there is absence of burnout.

In addition, it is also pointed that job demands, such as organisational and emotional demands, are negatively correlated with work engagement (Montgomery et al., 2015; Bakker et al., 2010; Mauno et al., 2007). Nevertheless, contradictory finding of the direct effect of job demands on work engagement is found in the prior studies due to the measured job demands were differentiated into challenge and hindrance job demands (Crawford et al., 2010). Demerouti and Bakker (2011) stated that different type of job demands affects the work contexts differently, and this could influence the significance of the relationship between the nature of job demands measured and work engagement.

Hence, a local researcher, Idris et al. (2011) suggested that PSC is useful in this context as it is a precursor to working conditions, where the challenge job demands are promoted while the hindrance job demands are diminished. As a result, the present researchers propose a better job design by PSC through two types of job demands (challenge demands and hindrance demands) which could enhance the work engagement of RU academic staffs while minimising their level of burnout. In addition, Garrick et al. (2014) mentioned that a working environment with manageable job demands due to higher perceived PSC tends to lead the level of work engagement among the employees to escalate at a greater pace compared with the employees from the organisation with lower perceived PSC. It is further pointed that PSC could have triggered the employees to put in more personal resources to engage with challenging job demands so that the valuable psychological care provided by the organisation is being recompensed. Consequently, a high level of work engagement is cultivated due to high personal resources, and this could guard the employees from being exposed to burnout (Maricutoiu et al., 2017).

## **3 Methodology/materials**

Throughout the review on burnout, the area of study is narrowed down to education, particularly on burnout among academicians from Malaysian RU. The study includes only full-time academicians who are working more than one year with Malaysian RU,

namely UM, UKM, UPM, USM, and UTM. Prior studies have indicated that the socialisation process at the workplace will need to take at least six months (Filstad, 2004; Katz, 1978; Morrison, 1993; Van Maanen, 1975). Another main reason the present paper only include full-time academicians who are working more than one year is that academicians may not experience burnout in the first year or beginning of their working life. The RU academicians who are on sabbatical, maternity, medical or study leave throughout the study as well as academic staffs who are seconded to the Ministry of Higher Education, trainee lecturers and tutors are excluded from this study.

Surprisingly, different types of job demands are recognised as the main sources of burnout while work engagement among academicians is then affected. As a result, PSC is found to be the remedy that could serve as the guidelines for a prominent job design, which in turn promoting challenge job demands while diminishing the effects of hindrance demands. Therefore, a better scenario is foreseen, where the academicians from Malaysian RU are psychologically healthy. The review of literature is further executed to determine if work engagement could enhance the positive effects of job demands on burnout of academicians.

## 4 Results and findings

### 4.1 *Relationship between PSC and job demands (challenge demands and hindrance demands)*

PSC is claimed to be the contextual forerunner to the JD-R model by previous studies (Idris et al., 2011). It is found by the previous studies that PSC is inversely related to job demands which lead to unfavourable work outcomes, such as burnout, depression, and anger, particularly on Malaysian employees (Idris et al., 2011, 2012; Idris and Dollard, 2011). There is an argument that PSC can decrease the impact of job demands at work. However, most studies still believe in negative job demands even though a few job demands have been utilised to support that PSC can diminish the impacts of job demands (Dollar and Bakker, 2010; Idris et al., 2012). Hence, Yulita et al. (2014) stated that it is crucial to differentiate the job demands into challenge demands and hindrance demands so that the implication of demands and their effects on work and individuals are at a better explanation. In their study, PSC at team level was shown to reduce the levels of hindrance demands, but regrettably having no influence on challenge demands. Therefore, PSC was suggested to be regarded as a vital aspect that could diminish demands and cultivate a safe and healthy safe working environment (Yulita et al., 2014). As a result, it is expected that psychological safety climate is related to challenge and hindrance demands.

### 4.2 *Relationship between job demands (challenge demands and hindrance demands) and burnout*

Job demands, which consist of challenge demands and hindrance demands, are not necessarily negative, but they may turn into work stressors if excessive efforts are required from an individual who is unable to recover properly. However, Demerouti et al. (2001) stated that physical and psychological deterioration such as burnout could occur due to long-term exposure to job demands.

The relationship between job demands and burnout, particularly emotional exhaustion, is indeed relying on the type of demands itself, where burnout is either related to challenge demands or hindrance demands (Yulita et al., 2014). Previous studies found that challenge and hindrance demands were positively related to emotional exhaustion (Yulita et al., 2014; LePine et al., 2004; Van den Broeck et al., 2010). This is further explained that the fundamental characteristics of challenge demands are indeed job demands and this could not prevent challenge demands from producing emotional exhaustion (Yulita et al., 2014). Nonetheless, Yulita et al. (2014) claimed that hindrance demands were shown significantly associated with emotional exhaustion stronger than challenge demands on emotional exhaustion. Hence, employees tend to suffer from burnout if they remain unsuccessful in coping with the job demands effectively and efficiently within the stipulated time. From the above justifications, it is expected that job demands, either challenge or hindrance demands are related to burnout, specifically emotional exhaustion.

#### *4.3 Relationship between job demands (challenge demands and hindrance demands) and work engagement*

The relationship between job demands and work engagement is obscure due to contradictory findings (Schaufeli and Bakker, 2004). Studies are claiming a positive relationship between job demands and work engagement (Schaufeli et al., 2008), but conversely, there is a longitudinal study reporting that job demands to have no relationship on work engagements (Schaufeli et al., 2009). These unexpected and inconsistent findings are indeed due to different types of job demands being assessed, which are challenging, and threatening demands based on the perceived significance of the condition for their well-being (Lazarus and Folkman, 1984).

It is argued that the challenges job demands (e.g., workload, time pressure, cognitive demands, etc.) are positively related to work engagement (Bakker et al., 2005; Crawford et al., 2010; Van den Broeck et al., 2010) over time (Mauno et al., 2007) while hindrance job demands (e.g., role ambiguity, role conflict, etc.) are negatively related to work engagement (Mauno et al., 2007; Crawford et al., 2010; Van den Broeck et al., 2010). For the given challenge demands, employees tend to feel challenged and thus learning as well as growing among them are cultivated. Indirectly, the employees enjoy their work and perform them with enthusiasm and dedication (Verbruggan, 2009). On the other hand, hindrance demands used to make the job difficult for employees to feel engaged, which in turn fades away the feeling of enthusiasm and dedication towards their job (Verbruggan, 2009). Based on the above discussion, it is seen that challenge demands can cause positive emotions and cognitions while increasing work engagement. Conversely, it is realised that hindrance demands can cause negative emotions and cognitions while undermining work engagement.

#### *4.4 Relationship between work engagement and burnout*

The relationship between work engagement and burnout established by people with their jobs are usually delineated as the opposite ends of the continuum (Maslach and Leiter, 1997). Research to date has indicated that vigour and dedication as the components of work engagements are in direct opposition to exhaustion and cynicism respectively, which act as the components of burnout (Demerouti et al., 2010; Gonzalez-Romá et al.,



2006). However, Hultell and Gustavsson (2010) found that work engagement as a whole, rather than in components, is directly opposite to burnout as a whole, where some employees are engaged at their workplace when there is the absence of burnout.

Surprisingly, Schaufeli and Bakker (2003) claimed that work engagement is not the end opposite to burnout, but apparently different concept. Furthermore, Crawford et al. (2010) also claimed that these two constructs are not empirical opposite and this lends support to the interpreter that work engagement and burnout should be measured as independent constructs separately. Nonetheless, Cole et al. (2012) provided some scientific and practical evidences that the relationship between work engagement and burnout are in only one continuum without separating them into two different constructs. Hence, the work engagement and burnout model of Leiter and Maslach (2004) is focused in this present study by considering work engagement and burnout are the opposite ends of the same continuum. Therefore, based on the above discussion, it is hypothesised that work engagement and burnout is inversely related.

#### *4.5 The mediating role of work engagement on the relationship between job demands (challenge demands and hindrance demands) and burnout*

As discussed earlier, previous studies have confirmed that job demands is significantly related to work engagement, where challenge demands are positively associated with work engagement (Bakker et al., 2005; Crawford et al., 2010; Van den Broeck et al., 2010) over time (Mauno et al., 2007) while hindrance demands are negatively associated with work engagement (Mauno et al., 2007; Crawford et al., 2010; Van den Broeck et al., 2010). Meanwhile, it is also demonstrated by the previous studies that work engagement is negatively associated to burnout (Maslach and Leiter, 1997; Schaufeli and Bakker, 2004; Langelan et al., 2006). Since the relationships between job demands and work engagement are as significant as the relationship between work engagement and burnout, hence work engagement can be a potential mediator for the relationships between job demands and burnout.

Furthermore, according to Schaufeli and Bakker (2003), work engagement is not direct negatively related to burnout, but instead a related but separate construct. This is further supported by Schaufeli et al. (2002) that work engagement is negatively, but not perfectly related to burnout. Therefore, these findings permit a step further to recommend that job demands and burnout interact with each other (Bakker et al., 2004; Garrosa, et al., 2011), with work engagement having a mediating effect on burnout. Based on the above justifications, it is expected that job demands are indirectly related to burnout through work engagement.

## **5 Conclusions**

In general, a discerning comprehension of PSC's effects on burnout, work engagement, and challenge and hindrance demands is provided in this paper. PSC is found to be useful in minimising the level of burnout since it provides employees with a support mechanism, which in turn producing happier employees and less stress workplace.

Meanwhile, it is also shown that work engagement can be enhanced by PSC by reducing exposure to workplace psychological hazards. Besides, it is discussed that the

levels of hindrance demands can be reduced by PSC at the team level, but regrettably this does not apply to challenge demands. Additionally, this paper also supports the theoretical division of demands dimensions.

Favourable and unfavourable outcomes, including work engagement and emotional exhaustion, can be predicted by challenge and hindrance demands. This paper agrees with the idea that the type of demands that is hindrance and challenge demands, determines the nature of relationships between demands and implications (i.e. work engagement and emotional exhaustion). Based on the earlier discussion, work engagement is positively related to challenge demands while emotional exhaustion is positively related to hindrance demands. On the other hand, it is also exhibited in this paper that emotional exhaustion is positively related to challenge and hindrance demands. It is argued that despite challenge demands promotes positive work engagement; challenge demands are then still the demands which trigger emotional exhaustion among employees. However, it is found in this study that hindrance demands are more strongly related to emotional exhaustion compared to challenge demands.

Both unidimensional of work engagement and burnout, which are adopted in this paper, are found to be in a negative relationship. In addition, work engagement and burnout are considered as the opposite ends of the same continuum in this study. Meanwhile, it is revealed that job demands are related to work engagement, where challenge demands are positively related to work engagement while hindrance demands are negatively related to work engagement. Besides, it is also shown that work engagement is inversely related to burnout. Hence, work engagement is proposed as a potential mediator for the relationships between job demands and burnout in this study since the relationships from job demands to work engagement and work engagement to burnout are significant.

### *5.1 Implications*

The implications of this study recommend that PSC should be built and embellished within all RU so that the favorable work motivation is developed and the well-being of RU academicians is safeguarded (Dollard and Karasek, 2010). PSC could serve as a benchmark to examine the essence of working conditions within RU while identifying the visible features of work that are substantial for RU academicians' health and well-being. Hence, the management and the policy-makers, particularly the Department of Occupational Safety and Health of each RU, could employ the findings of the present study as a reference to theoretically translate PSC into the real work setting. As a result, the related work policies, practices, and procedures in the university could be improved. Hence, the RU management or policy-makers may be beneficial for the application of PSC into the job design of academicians. The relevant and suitable KPI can be developed for the RU academicians based on the job demands while achieving the vision and mission of the RU. This approach is critical to ensure the work engagement among RU academicians is maximised while their prevalence of burnout is at the minimum level. Convincingly, directly and indirectly, in-depth PSC contexts (high commitment from management, priority, communication and participation for academicians' psychosocial health and safety) could offer a useful tool to help in the change of management practices of RU and in turn the academic staff's health and effectiveness.

## 5.2 Limitations

Cross-sectional analysis is used in this study since the literature being reviewed adopted this method to overcome the difficulty of identifying the same respondent over the time. As a result, common method variance due to the use of cross-sectional analysis could be the limitation of this study. Besides, the PSC theory used in this study, either due to an organisational level or individual perception, is yet to be explained. Therefore, the findings obtained are yet to be justified further for the type of perception the study employs. Moreover, as limited research of PSC theory application is found in the local context, this study depends on the literature and research concept from the West. Hence, the findings discussed in this study might not be all applicable to the local context since there is a difference in apprehension towards the concepts and terminologies used between the West and the local.

## 5.3 Future directions

A combination of PSC and other climates, such as safety climate, is suggested to be used in the research. A better understanding of the different concepts of PSC and safety climate is promoted when they are used to predict psychological and physical health. Furthermore, PSC is usually built based on organisational factors. For future research, the external factors, such as economic, technological, demographic and social forces, can be considered by the management to develop a more robust PSC. Meanwhile, although PSC is recognised as the antecedent to the working environment, the future research could identify if there is any other higher level of antecedent to PSC, which affects PSC directly and the organisational policy indirectly. Obtaining objective measurement of PSC is another point of consideration for future research. The data attained from the superior or manager is indeed a better indicator for working performance rather than self-rated instrument. Moreover, objective measurement of PSC could help to tackle the issue of common method variance.

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