
Noor Hassanah Husin¹, Nur Naha Abu Mansor², Beni Widarman Yus Kelana³

¹Azman Hashim International Business School, Universiti Teknologi Malaysia; noorhassanah@ums.edu.my
²Azman Hashim International Business School, Universiti Teknologi Malaysia; nurnaha@utm.my
³Azman Hashim International Business School, Universiti Teknologi Malaysia; beni@utm.my

ABSTRACT
High performance work systems (HPWS) has dominated human resource management research on the importance of this bundle of HR practices to organizations. To date, research in this area has focused greatly on the organizational performance and innovation. However, mainstream HPWS research has paid little attention to employees’ innovative work behaviour, or to the relationship between HPWS and work engagement. Therefore the purpose of this study to investigate the relationship between HPWS and innovative work behaviour. This study also aims to examine the mediating role of work engagement between HPWS and innovative work behaviour. In this article, theory of job-demand resource used to describe the influence of HPWS as organizational resources on innovative work behaviour through work engagement. The outcome of this study generates relevant information for organizations in recognizing the HPWS practices as well as enabling the organizations to highlight the most practical and significant HPWS implementation.

Keywords: high performance work systems, innovative work behaviour, work engagement

Introduction
Organizations achieving a competitive advantage in the marketplace via creativity and innovation have experience business success as they know how to produce new ideas and then deploy them for unique products, services and work processes by optimally capitalizing on human capital (De Jong and Den Hartog, 2007). One way for organizations to increase innovative capacity is to capitalize on their employees’ ability to innovate (De Jong and Den Hartog, 2007) and generate innovative ideas and solutions to improve products and services (Donate, Peña, and Sánchez de Pablo, 2016).

Organizations are responsible to provide opportunities for their employees’ to innovate by enrich their knowledge, skills, and abilities (Fu, Flood, Bosak, Morris, and O’Regan, 2015) to supply ideas and channel the creative ability to convert the ideas into innovations that is profitable (Prajogo and Ahmed, 2006). With this regard, it is imperative for organization to use a high performance system that promotes good management and the growth and competitiveness of employees (Tsai, 2006). Principle of HRM required employees to come out with novelty and creative ideas in work organizations (Ahmed, Ayub, and Klimoski, 2018). Research on strategic human resource practices (SHRM) has suggested that high-performance work systems (HPWS) enable firms to become more effective and gain core competitive advantage (J. Zhang, Akhtar, Bal, Zhang, and Talat, 2018) by allowing employees to express their ability to innovate, gain motivation and provided an opportunity for them to grow professionally.
Recent scholars have still called for in-depth and empirical research on the relationship between HPWS and the organizational innovation to fully understand the mechanisms between these two variables (Afsar, Badir, and Khan, 2015; Escribá-Carda, Balbastre-Benavent, and Teresa Canet-Giner, 2017; Fu, Rousseau, Morris, and Regan, 2015; Jerez-Gómez, Céspedes-Lorente, and Pérez-Valls, 2017; Rasheed, Shahzad, Conroy, Nadeem, and Siddique, 2017; Zhu, Liu, and Chen, 2018). Thus, further investigation is still needed because existing research has not adequate to cover innovative behaviour of employees especially the indirect path between these strategic HRM practices and organizational innovation (Chowhan, 2016; Donate et al., 2016; Fu, Flood, et al., 2015; Rasheed et al., 2017). One of the most important issues is that “the primary criticism leveled at HPWS concerns its lack of theoretical development and the need for better articulation of the ‘black box’ phenomenon (Heffernan and Dundon, 2016).

It is acknowledged that scholars are beginning to examine new variables as underlying mechanisms through which HPWS influences firm outcomes in response to the recent calls (Jiang and Liu, 2015). Although this general link between HPWS and performance has been empirically established, our knowledge about the extent to which HR practices contribute to individual creativity and firm innovation is very limited (Jiang, Lepak, Hu, and Baer, 2012). Therefore, more research is needed to fully understand the linkage between HPWS and performance generally, and the HPWS and innovation relationship in particular (Zhang, Di Fan, and Zhu, 2014). It has motivated researchers to further investigate the possibilities of the existence of mediating or moderating variables in the relationship between HPWS and innovative work behaviour.

The prime objective of this study is to develop and test a conceptual model linking those variables. Specifically, this study attempts to examine the relationship of the seven dimensions of HPWS towards innovative work behaviour. It also attempts to examine the role of work engagement that may mediate the relationship. This paper is organized as follows. In the subsequent chapter, a review of literatures will be presented. This is followed by the development of theoretical framework and the formulation of testable hypotheses.

Literature Review
This section emphasizes the review of essential studies related to HPWS, work engagement, innovative work behaviour and the job-demands resource theory used for this study.

Work Engagement
Employee engagement introduced to revealed the link or entangled the ‘black box’ that has been debating among scholars between HPWS and innovative work behaviour that to be assumed as other factor influenced the relationship. Several scholars has conducted study about HPWS and organizational innovation such as (Rasheed et al., 2017) and tested employee voice as mediator, (Escribá-Carda et al., 2017) conducted study between employee’s perceptions of HPWS and innovative behaviour used exploratory learning as mediator. Another scholar Zhu et al. (2018) used entrepreneurial orientation to test the relationship between HPWS and corporate performance. However, study about on how work engagement influence the relationship between HPWS and innovative work behaviour at individual level is still lacking in its literature. Therefore, it is imperative for this study to examine how work engagement can really influence the abovementioned relationship to deal with the gap of research and how it function.

The reason of many scholars draws attention on work engagement because of the positives states that widely consolidated in previous study that reflects work engagement to outcomes such as job performance (Bal and De Lange, 2015; Bin, 2015); intention to quit (Agarwal, Datta, Blake-Beard, and Bhargava, 2012); innovative work behaviour (Agarwal, 2014b; Kwon and Kim, 2019); and burnout (Lara and Salas-Vallina, 2017). (Kwon and Kim, 2019) documented that engaged employees are more likely to become innovative by enabling themselves to find creative solutions through coping strategies. (Kim and Park, 2017) reported empirical evidence that measured
employee knowledge sharing and innovative behaviour increased as employee engaged in daily work activities as employee engagement has strong impact on these variables. In order to enhance employees’ productivity, engagement is a strong predictor (Lara and Salas-Vallina, 2017). Therefore, it can be concluded that in today’s business operation, employees’ are no longer left alone in management activities especially for managers and supervisors because there are in played a position as bridge that connect from frontline employees to top management. The key drivers or top motivator for engagement such as authority, career opportunities, involvement in decision-making, relationship with leader, care and meet employees’ needs, nature of job determines the level of engagement (Bin, 2015).

**Innovative Work Behaviour**

De Jong and Den Hartog (2010) had distinguish four dimensions of innovative work behaviour namely idea exploration, idea generation, idea championing and idea implementation. Idea generation requires oneself come out with generation of ideas that may relate to new products, services or processes. Once idea generation has been recognized, the next phase is idea championing that is involved in finding supports and building coalitions. This is the stage where oneself need to promote his/her ideas to ensure that ideas can be implemented after overcoming a few obstacles such as uncertain of ideas and resistance to change from members in organizations. Lastly, idea implementation includes making innovation part of the regular work processes. Support from organizations by providing employees with the opportunity and inspired them to promote and implement new ideas is essential to encourage employees work on differentiation and continuous innovation as an important strategy to gain competitive advantage in the ever-increasing market competition and threats of new competitors (Afsar et al., 2015).

**Job Demand-resource Theory**

In this study, job demand-resource theory is used as a basis for the theoretical framework. JD-R theory are gaining popularity among scholars (Mohammad, Quoquab, Halimah, and Thurasamy, 2019) because this model assumes that employee well being results from a balance between positive (resources) and negative (demand) job characteristics (Demerouti and Bakker, 2011). These factors can be classified in two general categories (i.e. job demands and job resources), thus constituting an overarching model that may be applied to various occupational settings, irrespective of the particular demands and resources involved (Demerouti and Bakker, 2011). The job demands-resources (JD-R) model robustly predicts how job demands deplete individuals through an impairment process that results in stress and burnout and how job resources bolster engagement through a motivational process (Demerouti, Nachreiner, Bakker, and Schaufeli, 2001; Grover, Teo, Pick, Roche, and Newton, 2018; Schaufeli and Taris, 2014). Furthermore, this finding is consistent with previous findings that show that more positive people have more positive views of the job demands and resources available to them (Grover et al., 2018). HPWS play as job resources that balances job demand so that individuals feel engaged and thus improve their innovative work behavior.

**Domain of High Performance Work Systems (HPWS)**

Research on HPWS has received proliferate attention from strategic HRM in exploring the link between HPWS and organizational innovation (Caniëls and Veld, 2016; Chen and Wang, 2010; Gritti and Leoni, 2012; Li, Wang, vaan Jaarsveld, Lee, and Ma, 2015; K. Lu, Zhu, and Bao, 2015; Mazzei, Flynn, and Haynie, 2016). Apart from that, researcher also explore the ‘black box’ that tie the link of HPWS and firm performance (Bendickson, Gur, and Taylor, 2018; Fu, Bosak, and Flood, 2018; Russell et al., 2018; Úbeda-García, Claver-Cortés, Marco-Lajara, Zaragoza-Sáez, and García-Lillo, 2018) amongst others. Even though there is no agreed universal definition upon HPWS (Russell et al., 2018) most scholars agreed on concept that HPWS designed as a strategic
HRM system that providing employee with necessary skills, motivate them through enough information and giving them opportunity to their career growth. HPWS started as an effective tool to gain competitive advantage and has been widely used in the west (Dhar, 2015). This study place more emphasize on the seven frequently used HPWS practices categories in the existing literature from 1994 to 2018 namely selective staffing, extensive training, mentoring, job security, employee participation, performance appraisal, and compensation. Most studies treated HPWS as one-dimensional construct that encompasses all seven dimensions. The use of a single HPWS system index is supported by arguments made by (Becker and Huselid, 1998) and consistent with the approach used in many previous work (e.g. Chen, Jiang, and Tang, 2018; Datta, Guthrie, and Wright, 2005; Fu, Rousseau, et al., 2015; Rasheed et al., 2017) to name a few.

Selective Staffing Towards Innovative Work Behaviour and Work Engagement

Dessler (2008) described selection is a process start with basic testing concepts such as intelligence tests, specific cognitive abilities, personality tests and interest inventories. Then, followed by a hands-on assessment, subsequently final selection procedure involves conducting background checks and health tests. New HRM practices can enrich the talented, motivated, committed and innovative staff to enhance innovation (Waheed, Miao, Waheed, Ahmad, and Majeed, 2019). Prieto and Pérez-Santana (2014) grouped selective staffing under ability-enhancing practices and reported that ability-enhancing are significantly related to innovative work behaviour. In addition, staffing process confirmed the positive influence on the innovative work behaviour (Bücker and Horst, 2017). This situation is also fundamental to efficient leadership and management (Norazmi et al., 2019; Norazmi, 2020, Fauziyana et al., 2021; Zaid et al., 2021; Rosni et al., 2021; Firkhan et al., 2021)

Recruiting and selecting a competent and innovative employee can increase their ability to become more competent and creative as companies invest in various HR domains (Prieto and Pérez-Santana, 2014). Previous findings concluded that selective staffing as one of HPWS practices promote service innovative behaviour and this job resources provided by the organization give respond to employee of becoming engaged in service innovative behaviour (Dhar, 2015; Sun, Aryee, and Law, 2007). Rauch and Hatak (2016) believed that when selection and hired are carefully implemented in HR practices, it leads to SME performance because they only select the most qualified employees with adequately trained, thus making employees are more creative and innovative in executing tasks. Therefore, with a good HR practices adoption include selection process, it ignite the creation of new idea competency and those ideas can be applied to their latest products (Waheed et al., 2019). Good staff is also made up of people who are sincere, trustworthy and responsible to the organization (Een et al., 2021; Aminah et al., 2021; Roszi et al., 2021; Azlisham et al., 2021; Ishak et al., 2021; Nik Nurharlida et al., 2021; Mohd Norazmi et al., 2021; Saadiah et al., 2021)

Extensive Training Towards Innovative Work Behaviour and Work Engagement

Through proper and well-plan training, it’s contributes to organizational innovation in terms of leverage employee ability and knowledge and ignite employees’ motivation to innovate (Ma, Zhai, Zhong, and Zhang, 2019). A proper design of HR practices such as training able to improve employee’s innovative behaviour (Labrenz, 2014) and task-related training is domain knowledge that improve innovation in terms of commercialization of newly developed products and firms gain revenue from it (Ma et al., 2019). Consistent with previous research agreed that task-related training able to enhances employees’ human capital, knowledge and ability to innovate (Chadwick, Super, and Kwon, 2014).

Training is important factor that shape attitudes of employees that influence the well being of psychological and innovative behavior (Xerri and Reid, 2017). It is also agreed by Ma et al. (2019) stated that task-related training enhances employees’ human capital, knowledge, and ability to
innovate. However Veenendaal and Bondarouk (2015) argued that employees’ perception of training and development opportunity was negatively associated with the idea generation component of innovative work behaviour. Due to controlling structure and employee rigidity from management, let alone with firm’s lack of innovation climate, it create a barrier that prevent employee to perform innovatively and later they reluctant to innovate (Waheed et al., 2019). Xerri and Reid, 2017) stated that employee engagement is critical factor that able to influence employee perceptions on training opportunities and thus encourage them to innovate. When organization emphasizing the importance of positive effect of HR practices such as training in order to obtain positive outcome, employee’s perceived the reciprocate of effort from management and motivate them to engaged in innovations activities (Dhar, 2015). The reason is that training and development proven as significant predictor to work engagement (Aktar and Pangil, 2018).

Mentoring Towards Innovative Work Behaviour and Work Engagement
Some extant researchers define mentoring as a relationship between an expert and a novice (Ben Salem and Lakhal, 2018). Most of previous researches look the context of mentoring as coaching between supervisors and newcomers (Kram and Hall, 1996; Lewis et al., 2016; Uen, Chang, McConville, and Tsai, 2018; Wang, Chen, Duan, and Du, 2018) albeit the positive relationship between mentoring and positive outcomes. Ben Salem and Lakhal (2018) further explained that organizational mentoring program is meant to help the employees acquire knowledge and enhance their career development, whereas the mentoring program for the successors is required to ensure business continuity. Mentoring functions have positive significant impact on employees’ innovative performance (Uen et al., 2018). If organizations adopt mentoring as one of the powerful strategies for promoting innovation by systematically structuring facilities in terms of providing a platform for creativity, interaction and communication between employees, this method will make employees more innovative and indirectly benefit the company's innovation performance (Uen et al., 2018).

Nevertheless, Whitten (2016) conducted a study to look at the comparison between employee who were mentored and who were not. He found that employees who were mentored able to increase the level of engagement that can motivate them to feel the connectedness and it help them to satisfy their social needs. Wang et al. (2018) also indicated that effective supervisory mentoring able to fulfill the basic psychological needs of satisfaction of employees’. Once the satisfaction level increase, they become more engaged and immersed at their work. Uen et al. (2018) again argued when organizations reinforces the mentoring program, it creates a bridge that brings them a closer connection between the employee and the job itself, in other words sparks the feeling of ownership, thus leads them to be more innovative and enthusiastic at work.

Job Security Towards Innovative Work Behaviour and Work Engagement
Employees were highly motivated to produce a positive outcomes that were provided by job security (Aktar and Pangil, 2018; Chirumbolo and Areni, 2005). Downsizing is one of organization strategies that effected perception of job security and ignite alarming feelings of job security and lowering the level of accessing creativity were raised (Marques, Galende, Cruz, and Ferreira, 2014). High performance employees also likely reducing their innovative efforts where organizations can no longer provide them job security and they viewed downsizing strategy as a threat for their job (Mehrizi, 2016).

Dhar (2015) continued to highlight the prevalence of job security on promoting service innovative behaviour to ensure positive outcome to the organizations. Job security is one of HPWS practices that found as significant predictor and have strong positive relationship with employee engagement (Aktar and Pangil, 2018). Employees feel competent when they have the opportunity to deliver knowledge and abilities in their work roles because the perceived of job security thus becoming engaged (Chen, 2018). Several extant researchers emphasized the roles of job security as motivational tools to enhance employee their positive attitude towards their work (Chen, 2018;
Karatepe and Olugbade, 2016). However, Macey and Schneider (2008) argued that work engagement matters most under conditions of uncertainty where when job security aligns with organization’s interest and employees. The research consistent with Selenko, Mäkikangas, Mauno, and Kinnunen (2013) who found that employees who have the feelings of job insecurity intend to engage and perform better to keep their job safe. Lu, Wang, Lu, Du, and Bakker, (2014) later added that rapid changes in organizations trigger a greater feeling of uncertainty and these circumstances motivate engaged employees to restructure their job.

**Employee Participation Towards Innovative Work Behaviour and Work Engagement**

Participation functions in three main elements, first giving an opportunity for employees to set their goals and develop career, second to get ideas among employees and third giving authorization and distribute responsibilities to them (Irawanto, 2015). Encouragement of participation able to assist in assuring innovation effort from their knowledge and motivation (Ma et al., 2019). They further reported employee participation improve firm innovation in terms of commercial success of new product development and the percentage of firm revenue from newly developed products. For example, Dhar (2015) gathered found positive relationship between encouragement of participation on service innovative behaviour. This is because employee viewed these relationships as reciprocate and thus becoming engaged in service innovative behaviour. Such practices of employee participation improved the level of engagement and proved to be a significant predictor to employee engagement (Aktar and Pangil, 2018). Employee participation open an avenue for employee likely to engage more in proactive problem solving, being creative in challenging task and enthusiast to work beyond their limited set of tasks (Prieto and Pérez-Santana, 2014). At the same time, by inviting employees to participate in decision-making process rises the level of engagement in pouring knowledge to innovation efforts (Ma et al., 2019). Prieto and Pérez-Santana (2014) further stated that level of engagement increase by implementing participation of employees practices in organizational activities because employee perceived by giving opportunity to participate as management support and chances of collaboration, thus ignite innovative behaviour.

**Performance Appraisal Towards Innovative Work Behaviour and Work Engagement**

Performance appraisal is grouped under motivation-enhancing because the system is based on merit rewards in creating fairness in organizations that contribute to employee motivation (Prieto & Pérez-Santana, 2014). For instance Ahmed et al. (2018) found a significant relationship between teamwork based appraisal and innovative work behaviour. Same result reported by Bücker and Horst (2017) that found performance appraisal positively influence innovative work behaviour and in fact also positively influence the innovation performance of SMEs. Dhar (2015) reported a positive effect of performance appraisal as one of high performance human resource practices on stimulating service innovative behaviour of employees from a well-run practice. However, it was argued by Prieto and Pérez-Santana (2014) who found a different result where there was no significant effect between performance appraisal as motivation-enhancing HR practices and innovative work behaviour. They argued that employee perceived this practice to be more than just behavioral control such as being judgment and not management support that weakens intrinsic motivation and innovative behaviour. Research has well documented the performance appraisal effect on work engagement. For example, Gupta and Kumar (2013) confirmed the existence of strong impact of performance appraisal fairness on work engagement among professional working in Indian multinational corporations (MNCs), private and public sector. They further mentioned that employee engagement was determined by their perception on performance appraisal justice. Dhar (2015) also supported the positive effect of performance appraisal as a tool and resources provided from management on upholding service innovative behaviour and as a result, they tend to be more engaged. However, when they perceived performance appraisal to be unfair, they begin to retaliate and detached themselves from being engaged to their job (Fuchs, 2011). Another argument from
Kumar, Sarkar, and Dhiman (2019) the uptake of performance appraisal among employees become unrealistic and quite problematic. They further argued that power distance, seniority and relationship between appraiser and appraise influence more rather than actual individual performance.

**Compensation Towards Innovative Work Behaviour and Work Engagement**

A good compensation system is vital and has proven a better organizational and individual performance (Bendickson et al., 2018; Carlson, Upton, and Seaman, 2006; Fu et al., 2018; M. Zhang et al., 2014) among others. Several reasons lead to this issue such as salary and benefits, lack of career progression, work location, organizational culture and a few more. Compensation in terms of tangible rewards known as extrinsic motivation is required to encourage employee become innovative (Zhou, Zhang, and Montoro-Sánchez, 2011). Intangible rewards on the other hand plays as intrinsic rewards such as setting innovation objectives, appreciation, learning support, intensive training and work flexibility have strong impact on promoting innovative behaviour. Extant scholars Biggerstaff, Blank, and Goldie (2019) highlighted the function of new compensation structure apart from e-recruitment and selection, and training tend to define the willingness of employee’s innovation at workplace.

Another extant researchers Ahmed et al. (2018) stated performance-based rewards and fair compensation ignite employee motivation toward innovation. Rasheed et al. (2017) also found a significant relationship between compensation as one of HPWS practices on innovation. Supported by Aktar and Pangil (2018), stated that rewards and recognition was one of predictors of employee engagement. This is because employee perceived compensation as reward system provided by management as a support to encourage them becoming more engage in improving and enhancing innovative behaviour (Dhar, 2015). All forms of compensation such as salary increment, bonuses, career development opportunities and healthcare affect the level of engagement and employee started to detach themselves from being engaged if organizational success that comes from their effort was not rewarded properly (Azoury, Daou, and Sleiaty, 2013).

Nonetheless, numerous scholars argued that compensation system found to be not significant on innovative work behaviour or work engagement. It was entirely an individual verdict whether to adopt with innovativeness regardless being rewarded or not. An example from Bos-Nehles and Veenendaal (2017) expected that fair compensation system will increase the level of innovativeness of individuals, however the actual result was actually reducing employee’s behaviour towards innovation. In addition, rewarding individual performance or financial remuneration can only have short-term effects as well as triggers ongoing hatred from those who are not rewarded (Jiménez-Jiménez and Sanz-Valle, 2011).

**Intervening Effect of Work Engagement in the Relationship Between HPWS and Innovative Work Behaviour**

Previous scholars have argued that in the existence of mixed findings in the HPWS and innovative work behaviour. It is very likely that the relationship to be indirect rather than direct and trying to identify other factor that may be influence the relationship (Agarwal, 2014b, 2014a; Escribá-Carda et al., 2017; Rasheed et al., 2017). Work engagement has been recognized as an imperative mediating variable (Agarwal, 2014a) that may influence the link between HPWS and innovative work behaviour. There are various studies suggest the favorable effect of HPWS on work engagement and the positive effect of work engagement on innovative work behaviour. This argument suggests that HPWS may increase work engagement and consequently enhance innovative work behaviour of employees.
Conceptual Model

Figure 1 shows a hypothesized model that linked HPWS, work engagement and innovative work behaviour. The proposed theoretical construct of HPWS refers to selective staffing, extensive training, mentoring, job security, employee participation, performance appraisal, and compensation. This construct is based on the most frequently used of HPWS practices categories from the existing literature from 1994 to 2018. Work engagement as a mediator and innovative work behaviour as dependent variable.

![Fig. 1: Proposed Conceptual Model](image)

Conclusion

Various studies have identified the relationship between HPWS and innovative work behavior has shown inconsistent results. Therefore, this study seeks to expand the previous studies by developing a more comprehensive model to provide better explanation of HPWS implementation. This study seeks to determine whether HPWS dimensions can enhance innovative work behavior through the existence of work engagement.

Although numerous studies have examined the role of HPWS in influencing innovative work behavior, other factors that may influence these direct relationships are still lacking. In addition, this study is based on literature review that found a powerful relation between HPWS and innovative work behaviour. Further, this study may offer additional evidence in examining the function of HPWS implementation in the context of innovativeness by proposed a model that could be used for testing the hypotheses outlined and empirically test the model for its validity and robustness. The study also help accurately to comprehend how to increase and encourage innovative behavior amongst employees, thereby equipping practitioners with actionable knowledge about how to execute HPWS practices efficiently to generate a source of competitive advantage.

References


