SPIRITUALITY AT WORK, HRM PRACTICES, EMPLOYEE ENGAGEMENT AND JOB PERFORMANCE AMONG NURSES AT PUBLIC HOSPITALS

By

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ABSTRACT

Given the crucial roles of nurses in determining the effectiveness and sustainability of the healthcare system, their performance is acknowledged to be important in the provision of quality of care. However, it has been reported that job performance of nurses in the Malaysian general healthcare has declined over the past few years. There has been a great deal of research concerning factors that influence job performance of nurses such as spirituality at work, HRM practices and employee engagement. Therefore, this study seeks to examine the direct influence of spirituality at work and HRM practices on job performance and on employee engagement. The indirect influence through employee engagement is seen as a mediator on the relationships. Data was gathered through purposive sampling. A total of 987 usable data from ten general hospitals in Malaysia were used for further analysis. PLS-SEM was used to assess the measurement model and structural model. The bootstrapping output revealed a support on the relationship between spirituality at work, career development, performance appraisal, training and development and employee engagement on job performance among nurses. Besides, the study found a direct significant relationship between spirituality at work, employee participation and training and development on employee engagement. Meanwhile, the indirect effect showed that employee engagement mediates the relationship between spirituality at work, employee participation, training and development on job performance among nurses. The practical implication indicated that spirituality at work and HRM practices restrains the negative impact of nursing shortage as well as improving job performance of nurses and better working environment. Future research may expand on the scope of the study by incorporating other variables to extend the framework proposed in this study.

Keyword: Spirituality at work, Human Resource Management practices, Job performance, Employee engagement.

ABSTRAK

Memandangkan peranan jururawat penting dalam penentuan keberkesanan dan kemampanan sistem kesihatan, prestasi mereka diakui penting dalam penyediaan kualiti penjagaan. Namun, terdapat laporan mengenai prestasi kerja jururawat di sektor awam di Malaysia yang telah menurun sejak beberapa tahun kebelakangan ini. Terdapat banyak kajian mengenai faktor yang mempengaruhi prestasi kerja jururawat sepertu kerohanian di tempat kerja, amalan HRM dan penglibatan pekerja. Oleh itu, kajian ini bertujuan meneliti pengaruh langsung kerohanian di tempat kerja dan amalam HRM terhadap prestasi kerja dan penglibatan pekerja. Pengaruh tidak langsung melalui penglibatan pekerja dilihat sebagai pengantara bagi hubungan tersebut. Data dikumpul menggunakan persampelan bertujuan. Sebanyak 987 data boleh guna daripada sepuluh hospital awam di Malaysia digunakan untuk analisis lanjut. PLS-SEM digunakan untuk menilai model pengukuran dan struktur. Hasil *bootstrap* menunjukkan bahawa terdapatnya sokongan terhadap hubungan antara kerohanian di tempat kerja, perkembangan kerjaya, penilaian prestasi, latihan dan perkembangan dan penglibatan pekerja terhadap prestasi kerja dalam kalangan jururawat. Selain itu, kajian menemui hubungan langsung yang signifikan antara kerohanian di tempat kerja, penglibatan pekerja dan latihan dan perkembangan terhadap penglibatan pekerja. Sementara itu, kesan tidak langsung menunjukkan bahawa penglibatan pekerja mengantara hubungan antara kerohanian di tempat kerja, penglibatan pekerja, latihan dan perkembangan terhadap prestsai kerja dalam kalangan jururawat. Implikasi praktik menunjukkan bahawa kerohanian di tempat kerja dan amalan HRM menghalang kesan negatif kekurangan jururawat serta meningkatkan prestasi kerja jururawat dan persekitaran tempat kerja. Kajian akan datang boleh memperluaskan skop kajian ini dengan merangkumkan pemboleh ubah lain untuk memperluaskan kerangka kerja yang dicadangkan dalam kajian ini.

Kata kunci: Kerohanian di tempat kerja, Amalan pengurusan sumber manusia, Prestasi kerja, Penglibatan pekerja.

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LIST OF ABBREVIATION

HRM	Human Resource Management
SW	Spirituality at Work
SMW	Meaningful Work
SIL	Inner Life
SSC	Sense of Community
HRC	Career Development
HRP	Employee Participation
HRA	Performance Appraisal
HRT	Training and Development
EEV	Vigor
EED	Dedication
EEA	Absorption
PTI	Information Support
PTC	Coordination Care
PTS	Social Support
PTT	Technical Care
PCI	Interpersonal Support
PCJ	Job-task Support
PCC	Compliance
PCV	Volunteering for Additional Duties

CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter presents the background of the study, the problem statement, research questions, research objectives, scope of the study, significance of the study, definition of key terms, and summary of the thesis.

1.2 Background of the Study

Healthcare delivery in Malaysia is under the administration of Ministry of Health, which is divided into two, namely the government or public healthcare and private healthcare (Ujan, Abdullah, Haider, & Suhaimi, 2017). Public healthcare organization plays a significant role in delivering healthcare services especially in developing countries (Sharma & Dhar, 2016). Indeed, public healthcare in Malaysia which are taxation-based healthcare system (Ahmad, 2019) is being used heavily by the majority of the Malaysian population whereas the private, commercial healthcare however is targeting the rather well-off members of the population. Due to its nature as public service oriented, public hospital services are highly funded by the government which accounts for about 98 percent of the total budget, and patients only paid the remaining 2 percent (Quek, 2010). In addition, public hospital is more focused in reducing the society's cost meanwhile the private healthcare with emphases on the quality and short service time comes with 10% higher price for service (Permarupan, Al Mamun, Samy, Roselina, & Hayat, 2020).

Despite the government efforts to improve service delivery and care especially in public healthcare (Bernama, April 28, 2015), there were a number of complaints received by Ministry of Health from public about the performance of public service. In 2015, the Ministry of Health had received a total of 401 complaints (Public Complaints Bureau, 2015). In the following year, there is slightly increase in a number of complaints received by Ministry of Health, which is 445 (Public Complaints Bureau, 2016). Surprisingly, the complaints had dropped to 294 in year 2017 (Public Complaints Bureau, 2017). However, in year 2018, the number of complaints had increased significantly to 453 cases (Public Complaints Bureau, 2018).

However, maintaining performance and meet the expectations of society is not so simple and can create problems to employees (Gupta & Sharma, 2018). In public healthcare, employees play an important role by showing high job performance in carrying out tasks especially during the pandemic of coronavirus (COVID-19) (Pamungkas & Wulandari, 2021). According to Asiamah, Mensah and Ocra (2019), Som, Mustapha, Othman, Aziz, and Noranee (2015), Tesfaye, Abera, Balcha, Namera, and Belina (2015) and Greenslade and Jimmieson (2007), within the healthcare context, the nursing performance is known as an important aspect of quality healthcare service delivery where in turn help to improve the performance of hospital as a whole. In the same line, Giovanis, Pierrakos, Rizomyliotis, and Binioris (2018) also emphasized that administrative service and staff performance, facilities condition and nursing care contribute greatly to service quality perception and satisfaction. In

fact, quality of service is closely related to the performance of nurses where the higher the performance of nurses will improve the standard of nursing care (Lee & Ko, 2010).

Therefore, nursing is a profession that is important to study as nurses play a crucial role in the healthcare delivery system (Mohammadpourhodki et al., 2019; Bernama, August 12, 2009) and they form the largest group of healthcare professionals (Russeng, Wahiduddin, Saleh, Diah, & Achmad, 2020; Mohammadpourhodki et al., 2019; Tesfaye et al., 2015). It is because nurses in most healthcare organization play a central role in direct patient care (Ali & Qun, 2019; Asiamah et al., 2019; Shantz, Alfes, & Arevshatian, 2016) compared with any other employees who works in the same organization such as doctors and other medical personnel. They help patients to cope with their illness (Hassankhani, Jafarabadi, Abdollahzadeh, & Elmi, 2013), administering medication, providing treatment, educate patients to better health and recovery and comforting patients and family (Ali & Qun, 2019; Iyer, 2018; Shantz et al., 2016). Hence, in order to maintain the effectiveness of healthcare, it is crucial to maintain high level of nurse's performance (Yuxiu, Kunaviktikul, & Thungjaroenkul, 2011) because their performance is vital to quality of patient care (Gunawan, Hariyati, & Gayatri, 2019a). Moreover, due to the nature of nursing work, a healthy work environment is needed to scale back the effect of performance negativity to attain higher job performance (Permarupan et al., 2020).

Unfortunately, it has been reported that job performance of nurses in Malaysian healthcare has declined over the past few years (Manogaran &

Muthuveloo, 2019) and in fact patient satisfaction with the quality service provided in public hospitals has been decreased (Ahmed, Noor Hazilah, & Islam, 2017). Part of the reasons for declining of job performance among nurses are:

1) nurses shortage: According to Datuk Seri Dr Dzulkefly, former Health Minister of Malaysia, Malaysia is lacked of nurses (Teh Athira, May 13, 2019) where a substantial number of Malaysians' nurses working abroad (Pillay, January 1, 2017). For example, there are 2,000 of Malaysians' nurses working in Saudi Arabia (Pillay, January 1, 2017) and there were 2,351 Malaysians' nurse working in Singapore (Seng, Jun 24, 2021). In addition to that, outflow of trained and experienced nurses especially from public to private hospitals which lead to imbalance in skill distribution (Ramoo, Abdullah, & Piaw, 2013). Nursing staff migration and nerve-wracking working conditions are the reason of attrition of nursing staff (Permarupan et al., 2020). In the same line, shortage and excessive turnover of nurses lead to poor job performance of nurses which significantly affect the efficiency of healthcare organization and the quality of patient care (Manogaran & Muthuveloo, 2019; Nasurdin, Ling & Khan, 2018).

2) work overloads – according to Puan Zahrah, MAHSA University International Relations Director, the current nurse-to-patient ratio is still high which is 1:350 (Bernama, May 12, 2020) and yet, it is believed not enough to effectively serve the whole population as compared to World Health Organization's recommendation nurse-to-patient ratio which is 1:200 in case

of developing country. Therefore, as regard to the Malaysia population of 32.57 million (Department of Statistics Malaysia, 2019), at least 162,850 nurses are needed to meet the Ministry of Health's vision of achieving a nurse-to-population ratio of 1:200 by 2020. Disproportion between demand and supply of healthcare services affecting work overloads and reducing physical and emotional energy of the nurses (Sharma & Dhar, 2016). Indeed, majority of nurses in public hospitals are overworked, which causing them to exist from their profession earlier (Manogaran & Muthuveloo, 2019). Recently, Malaysia also faced a global health threat, COVID-19 pandemic and during this pandemic, with sudden surge of patients with limited staff to handle the situation leads to high workloads among healthcare employees (Zakaria et al., 2021). Research has shown that high workload experienced by nurses can lead to low job performance of nurses (Russeng et al., 2020).

3) longer work duration - longer work duration would increase the likelihood for errors and near errors among nurses. For instance, it was reported that the cases of medication error slightly increase from 3,104 cases to 3,741 cases in between 2016 and 2018 (Zainuddin, September 18, 2019). According to Health ministrys official figures, in between year 2016 and 2018, there were an increase of incidents-related errors reported in Malaysia hospitals, such as from 2,374 cases to 3,547 cases of adult patients having experienced a fall while in health institution, from 40 cases to 47 cases of transfusion errors, and from six cases to 11 cases of adverse outcomes in surgical procedures

(Zainuddin, September 18, 2019). As a result, the Ministry of Health need to spend about RM20 million yearly as compensation due to negligence (Shazwani, November 4, 2017). In the same vein, nursing profession currently faces many unprecedented challenges and obstacles, such as the increasing complexity of technology and an patient acuity with divers need and care requirements (Ta'an, Alhurani, & Alhalal, 2020), the rise of noncommunicable diseases from poor lifestyle such as heart disease, diabetes, stroke and hypertension (Lau, November 26, 2017) and communicable diseases and recently emergence of new disease such as pandemic of COVID-19 (Roslan, Yusoff, Asrenee, & Morgan, 2021; World Health Organization, 2016). The pandemic of COVID-19 has become a global health threat that surface an unprecedented demand on healthcare employees around the world (Roslan et al., 2021). Hence, in conjunction with these situations, nurses as largest group of healthcare professional were expected to work longer which would result to experience burnout (Zakaria et al., 2021) thus might in turn resulted to poor job performance.

Therefore, based on the scenarios provided, it seems that the performance levels of nurses who served in public hospitals are still questionable. It is because, ongoing crises in the current healthcare industry can severely undermine the quality of care and nursing performance (Chen et al., 2019). In the same line, all factors that mentioned above has resulted a rise in demand for timely and good quality healthcare services (Ujan et al., 2017; Sharma & Dhar, 2016).

1.3 Problem Statement

In public service organization, human resources which is reflected in the performance of employees are critical component that must be maintained by organization to meet the demand and needs of society (Pamungkas & Wulandari, 2021). Within healthcare context, job performance of nurse is significant to quality of patient care (Gunawan et al., 2019a), reduced number of patient complaint and increased patient satisfaction with the quality serviced provided (Ahmed et al., 2017). Since job performance of nurses in Malaysian healthcare has declined over the past few years (Manogaran & Muthuveloo, 2019), this has caused patient satisfaction with the quality service provided in public hospitals has been decreased (Ahmed et al., 2017). In fact, the Ministry of Health also received an average of 7,000 complaints per year from public which covering several aspects including poor services or communication skills among nurses (Shazwani, November 4, 2017). These shows that there are still several consumer complaints concerning unsatisfactory service which reflect nurses' job performance. In line with the current demand of nurses' job as indicated in the background of the study, nurses perform their duties in stressful environments (Bhatti, Alshagawi & Juhari, 2018) and this would affect their performance specifically the delivery of nursing care.

In Malaysia, there are several studies on job performance among nurses. For example, study by Nasurdin, Tan and Khan (2020) on 639 staff nurses working in large private hospitals in Malaysia, Nasurdin et al. (2018) have conducted a study among staff nurses at nine private hospitals in Malaysia, Mahat et al. (2018)

performed a cross-sectional study among nurses in Universiti Kebangsaan Malaysia Medical Centre, Arshad, Tumpang and Osman (2016) have done a study among 100 nurses at Mawar Renal Medical Centre and Hee, Kamaludin, and Ping (2016) have conducted a study among 180 nurses in health tourism hospitals. However, all these studies have been done in private hospitals. Johari, Shamsudin, Yean, Yahya and Adnan (2019) claimed that there is still limited research on job performance have been conducted in public service employees, despite the strong recommendation by scholar about the need to study job behaviors among public service (Garg & Rastogi, 2006) especially among nurses in public hospitals. In addition, little is known concerning the variables which could impact job performance of employee (Mousa, 2020).

Further, there are several researchers (i.e. El-Gazar & Zoromba, 2021; Ta'an et al., 2020; Asiamah et al., 2019; Cho & Han, 2018; Mahat et al., 2018; Safarpour, Sabzevari, & Delpisheh, 2018; Nabirye, Brown, Pryor, & Maples, 2011; Al-Ahmadi, 2009; Mrayyan & Al-Faouri, 2008; Abu AlRub, 2004) have conducted studies on nurses' job performance where these studies used instruments that focused only on task performance. For example, studies done by El-Gazar and Zoromba (2021), Ta'an et al. (2020), Asiamah et al. (2019), Safarpour et al. (2019), Cho and Han (2018), Mahat et al. (2018), Nabirye et al. (2011), Mrayyan and Al-Faouri (2008), and Abu AlRub (2004) used Schwirian (1978) six-D Scale to evaluate job performance of nurses. However, the scale only focused on certain part of task-specific behaviors and not covered all behaviors that nurses do while performing their daily tasks

(Greenslade & Jimmieson, 2007). According to Bell and Menguc (2002), previous studies on job performance research claimed that there are other factors than task-specific behaviors that can cause positive outcomes for clients. Besides, since there is development within nursing roles which involved with wide range of behaviors, the instrument to measure nurses' performance need to update (Som et al., 2015; Greenslade & Jimmieson, 2007).

In the same vein, previous studies such as Mahat et al. (2018), Cho and Han (2018), Nasurdin et al. (2018), Sharma and Dhar (2016), Islam and Al-Homayan (2013), Nabirye et al. (2011), and Al-Ahmadi (2009) have been focused on evaluating nurses' job performance using self-rating. Self-rating could lead to bias. Hence, there is lack of study to conduct in which performance of nurses are rated by their supervisor (Bhatti et al., 2018). Nasurdin et al. (2020) and Gunawan et al. (2019a) also suggested to use supervisor rating when measure job performance of nurses rather than using self-assessment only. Hence, this study used nurses' job performance scale which incorporates both task behaviors and contextual behaviors that focused on supervisors' rating on nurses' performance. The results from using nursing performance scale established by Greenslade and Jimmieson (2007) could enrich the empirical studies in the field of job performance among nurses in Malaysia.

Besides that, previous studies on job performance among nurses have focused on several predictors such as nursing human resource practicers (El-Gazar &

Zoromba, 2021), high performance work practices (Nasurdin et al., 2020), empowerment (Ta'an et al., 2020), job satisfaction (Safarpour et al., 2019; Chu & Hsu, 2011; Nabirye et al., 2011; Al-Ahmadi, 2009), job stress (Safarpour et al., 2019; Long, Kowang, Ping, & Muthuveloo, 2014; Al-Khasawneh & Futa, 2013; Nabirye et al., 2011; Abu AlRub, 2004), motivation (Gunawan et al., 2019a; Hee at al., 2016), training (Asiamah et al., 2019), transformational leadership (Trichandhara, Somrongthong, & Rinthaisong, 2019), psychological capital (Nasurdin et al., 2018; Othman, 2012), job characteristics (Mahat et al., 2018; Othman, 2012; Yuxiu et al., 2011), working condition (Cho & Han, 2018; Arshad et al., 2016), career commitment (Mrayyan & Al-Faouri, 2008), job demand (Al-Homayan, Shamsudin, Subramaniam, & Islam, 2013), job resources (Islam & Al-Homayan, 2013; Othman, 2012), and organizational commitment (Chu & Hsu, 2011; Al-Ahmadi, 2009) as predictors influencing nurses' job performance. Greenslade and Jimmieson (2007) claimed that nurses' task includes provide interpersonal service to the patients as well as to their relatives around the clock and these situations can affect emotional fluctuations among nurses which consequently change his/her attitude toward organization (Sharma & Dhar, 2016). Hence, nurses should be motivated to active their full potentials because highly motivated nurses in hospital can improve quality of care which indirectly enhance their job performance. According to Gunawan et al. (2019a), nurses who have good work motivation have a 2.43 times probability to perform well as compared to nurses who have poor work motivation. Garg and Rastogi (2006) suggested spirituality at work (Hisam & Sanyal, 2021) and HRM

practices (Nasurdin et al., 2020; Vivek, 2019) are among internal factors that play important roles in managing and motivating the performance of employees.

Further, Hisam and Sanyal (2021) and Wagner, Brooks and Urban (2018) suggested to consider spirituality at work as an important component in improving a healthy and productive healthcare work environment which in turn help to improve employee job performance. In the same line, Ali, Ali, Khan and Afzal (2021) argued that implementation of spirituality at work could create a friendly and comfortable work environment for all employees in organization. Meanwhile, Kouhdasht, Mahdian, Parmouz and Moghadam (2019) and Reutter and Bigatti (2014) claimed that higher spirituality seems to be associated with lower perceived occupational stress level and better psychological health. Therefore, in stressful situation, the innate source that could help employee, in this case of nurses in handling stress is spirituality at work because spirituality can act as a personal method that helps managing individual behavior at workplace (James, Miles, & Mullins, 2011) and gather intrinsic motivation to make most of their skills and abilities (Amin, Lubis, & Outra, 2020) especially when nurses experienced demotivation, high pressure while completing the tasks and dealing problems in workplace (Fitriasari, 2020). One way to boost nurses' positive behaviors in organization which significantly impact on quality of care was by introducing spirituality at work (Wei, Wu, Lee, & Tung, 2020). Indeed, when caregivers perceived their work had meaning to them, they are more invested in their work and more committed to provide better care (van Wingerden & van der Stoep, 2017).

However, although interest in spirituality at work is growing, studies about spirituality at work are scant and need further empirical examination (Hisam & Sanyal, 2021; Sony & Mekoth, 2019) because spirituality at work is rarely discussed and updated in the scope of management study (Amin et al., 2020). Past studies in healthcare industry and among nurses tend to link spirituality with turnover intention, job satisfaction, work ethics, organizational commitment, and organizational citizenship behavior (Fitriasari, 2020; Iyer, 2018; Pasikhani & Kuchesfahani, 2018; Yusof, Yaacob, & Rahman, 2018; Mumtaz, 2017; Wagner & Gregory, 2015) and less with job performance. Wei et al. (2020) and Wagner et al. (2018) claimed that studies that focused on spiritualty at work in healthcare and nurses' workplace are lacking. While other researchers such as Amin et al. (2020), Belwalkar, Vohra, and Pandey (2018) and Riasudeen and Prabavathy (2011) suggested that there is necessary to empirically examine spirituality at work and determine whether the variable is linked to employee attitudes and behaviors. Habeeb (2019) and James et al. (2011) stated that only few studies viewed spirituality as a key factor that influences job performance. Meanwhile, Margaretha, Saragih, Zaniarti and Parayow (2021), Iqbal, Adawiyah, Suroso, and Wihuda (2020), Devi (2016) and Ahmad and Omar (2015) argued that studies on spirituality at work and employee engagement are limited. Hence, there is lack of empirical study on spirituality at work and its impact on work attitude (employee engagement) and behavior (task and contextual performance) in the nursing workplace (Wei et al., 2020; Ahmad & Omar, 2014; Gupta, Kumar, & Singh, 2014). This suggests more room for studies on spirituality at work within healthcare context especially among nurses.

Besides spirituality at work, there is wide agreement on the importance of HRM practices on organizational performance (Anwar & Abdullah, 2021; Zainon et al., 2020; Hameed & Mohamed, 2016; Amin, Ismail, Rasid, & Selemani, 2014). HRM practices also could enhance employee job performance (Pamungkas & Wulandari, 2021; Thevanes & Dirojan, 2018; Sharma & Dhar, 2016), providing greater motivation and opportunity to perform (Amin et al., 2020; Ismail, Majid, Jibrin-Bida & Joarder, 2019b; Vivek, 2019). When employees feel they are treated well in their organization through HRM practices, they will dedicate optimal efforts and energy to boost service quality (Pamungkas & Wulandari, 2021).

. However, there is small number of studies on HRM practices influenced job performance especially in healthcare context (Kusu & Gowthan, 2020; Surji & Sourchi, 2020). The literatures in different organizations and contexts claimed that job performance is affected by the certain aspect of HRM practices (Alghnimi, Habeeb, & Kadhim, 2020; Asiamah et al., 2019; Ismail et al., 2019; Vivek, 2019; Otoo & Mishra, 2018; Thevanes & Dirojan, 2018; Mohamad & Yahya, 2017; Rosemary, Nnaemeka, & Etodike, 2017). Also, because organizations are more likely to make strategic choices by taking up some HRM practices and rejecting the others (Zheng, O'Neill, & Morrison, 2009; Subramony, 2006), it means that some HRM practices affect job performance and might therefore be a valuable resource for firms wishing to increase job performance of their employees (Karlsson, 2013; Beugelsdijk, 2008; Huselid, 1995). Following this argument, four HRM practices (i.e. career development, employee participation, performance appraisal, and training and

development) which was suggested by El-Gazar and Zoromba (2021), Nasurdin et al. (2020) and Gunawan, Aungsuroch, and Fisher (2019b) are hypothesized to influence job performance of nurses in public hospitals (task performance and contextual performance) since these practices are expected to enhance positive employee behaviors and outcomes.

Further, previous researchers (e.g., Anwar & Abdullah, 2021; Zainon et al., 2020; Hameed & Mohamed, 2016; Amin et al., 2014) study HRM practices with organizational performance rather than employee job performance. Therefore, it is vital to emphasis on perception from employee context of HRM practices as claimed by the previous researchers that there is scarcity of study on how employee perception of HRM practices impact on individual level of job performance (El-Gazar & Zoromba, 2021; Vivek, 2019; Garg & Sharma, 2015; Alfes, Shantz, Truss, & Soane, 2013b). In healthcare context, the value that major healthcare organizations and hospitals hoped to be delivered to patients was transmitted through their nurses' attitudes and behaviors (Pasikhani & Kuchesfahani, 2018; Greenslade & Jimmieson, 2007). Nasurdin et al. (2020) in their study among nurses suggested participation and training affect positive nurses' work attitudes and behaviours, Gunawan et al. (2019b) mentioned that in the area of nursing, training and development, performance appraisal as well as career planning are among effective human resource stategies to demonstrate improved performance and competence among nurses, while, El-Gazar and Zoromba (2021) claimed that nursing human resource practices in terms of training and development and performance appraisal can help to enhance nursing

performance as well as creating hospitals' performance excellence. Unfortunately, according to Khan, Yusoff, Hussain and Ismail (2019), there exist inconclusive results on the influence of HRM practices on job performance. For example, certain literatures have affirmed an insignificant association between HRM practices and job performance (Abboh, Majid, & Fareed, 2019; Otoo & Mishra, 2018; Kulachai, Narkwatchara, Siripool, & Vilailert, 2018; Napitupulu, Haryono, Riani, Sawitri, & Harsono, 2017; Khalid et al., 2014; Aleem, Bowra, Hamed, & Khan, 2012; Salleh, Yaakub, & Dzulkifli, 2011; Tiwari, 2011; Lamratanakul, Sorakraikitkul, Siengthai, & Dimmit, 2010).

Meanwhile, a few studies have confirmed a significant relationship between HRM practices such as career development (Otoo & Mishra, 2018; Mohamad & Yahya, 2017; Tiwari, 2011), employee participation (Alghnimi et al., 2020; Rosemary et al., 2017; Rizwan et al., 2013; Sukirno & Siengthai, 2011; Jabroun & Balakrishnan, 2000), performance appraisal (Ismail et al., 2019; Khan et al., 2019; Vivek, 2019; Khan, Khan, & Khan, 2017; Jouda et al., 2016; Khalid, Rehman, & Ilyas, 2014; Ojokuku, 2013; Tanveer et al., 2011), and training and development (Asiamah et al., 2019; Ismail et al., 2019; Khan et al., 2019; Otoo & Mishra, 2018; Thevanes & Dirojan, 2018; Jouda et al., 2016; Awan & Saeed, 2014; Aarabi et al., 2013; Tiwari, 2011) on job performance. Apart from that, Li, Naz, Khan, Kusi and Murad (2019) and Wollard and Shuck (2011) also noted that there is less of empirical study focused on HRM practices as an antecedent of employee engagement. While previous researchers such as Ahmed et al. (2020) and Aktar and Pangil (2018)

claimed that there is less of study to investigate the link between HRM practices or perceived HRM practices on employee engagement especially in developing country. In the same line, Hossain, Fareen and Hasan (2020) and Kehoe and Wright (2013), stated that less of studies on the influenced of HRM practices with the employee attitudes and behavior. Hence, there is a need to examine the link between HRM practices, employee attitude (employee engagement) and behavior (job performance).

Further, previous researchers had paid less attention on the mediating variable. However, few researchers claimed there is a need to understand the link between spirituality at work and job performance (Amin et al., 2020; Fox, Webster, & Casper, 2018). In the same line, Moon, Youn, Hur, and Kim (2020) claimed that only a few studies have empirically examined on how spirituality at work influences job performance via mediating mechanism. Similarly, Shantz et al. (2016) and Bowen and Ostroff (2004) argued that it is necessary to determine the variable that might mediate the relationship between HRM practices and performance. Kusu and Gowtham (2020) also suggested that it is important to interpretate the 'black box' on employee attitudes which will mediate the relationship between HRM practices and performance. The 'black box' is about on nature of mechanism or known as mediating variable that linking human resource practices and performance outcomes.

In the same line, Saks (2011) suggested that employee engagement mediates the relationship between spirituality at work and job performance while Alfes et al. (2013b) and Alfes and Shantz (2011) suggested incorporating employee engagement as mediating mechanism through which HRM practices influence individual

performance. Andrew and Sofian (2012) claimed that employee engagement can be used as a mediating variable to enhance positive behavior and intention of employees towards a higher job performance. In fact, there is lack of studies on mediating role of employee engagement (Sun & Bunchapattanasakda, 2019) as well as on how employee engagement might lead to individual job performance (Li et al., 2019; Rana, Pant & Chopra, 2019; Carter, Nesbit, Badham, Parker, & Sung, 2016). Hence, to enhance the performance and service delivery in healthcare, Bhatti et al. (2018) suggested to examine the factors affecting engagement and job performance in nursing. In nursing context, engagement is becoming important since there is a global shortage of nurses who are the pillar of healthcare services, a political resolution to restrain the rise in healthcare cost and a medical negligence rate that impends the health of nation (Bargagliotti, 2011).

The importance of further study on employee engagement in this profession had been strongly emphasized because engaged professional nurses were critical to preserving the quality of healthcare (Garcia-Sierra, Fernandez-Castro, & Martinez-Zaragoza, 2015; Keyko, 2014). Therefore, to increase the knowledge of the mediating role of employee engagement, this study intends to examine how employee engagement acts as mediator variable in order to explains the relationship between spirituality at work and HRM practices towards improving job performance of nurses.

In addition, the value that major healthcare organizations and hospitals hoped to be delivered to patients was transmitted through their nurses' attitudes and behaviors (Pasikhani & Kuchesfahani, 2018; Greenslade & Jimmieson, 2007).

Therefore, it is highly important for nurses to perform and engaged in a good attitude in the form of employee engagement as employee engagement involve the behaviors, attitudes, and intention (Mendes & Stander, 2011). Nurses needed to engage meaningfully because of the excess pressure they faced in a variety of demands in each day that can lead to stress and emotional exhaustion (Sharma & Dhar, 2016). In fact, nursing profession was generally seen as stressful occupation (Noor, January 21, 2019) because nurses must deal with an extensive number of patients daily (Norashikin & Nurazuwin Kursiah, 2019). Recently, an online survey conducted by Berita Harian Online found that teaching, nursing and customer service are among profession that are believed to have high risk of stress and depression (Noor, January 21, 2019). In the current global shortage of nurses, engagement appears to be a necessary means of counteracting the effects of declining staff ratios, staff retention, improving the quality of health care as well as greater patient safety and patient satisfaction (Almotawa & Shaari, 2019; Garcia-Sierra et al., 2015). Besides, based on scientific study of human strength and optimal functioning, employee engagement is considered to be opposite of burnout (Maslach, Schaufeli, & Leiter, 2001) and also known as an active psychological state that can generates positive emotions and increase motivation of employees (Parker & Griffin, 2011). This positive and motivated state of mind would lead to how nurses treated and served patients which in turns providing better outcomes for their patients (Freeney & Fellenz, 2013).

Apart from that, although there had been fair amount of research around job performance, only little research on spirituality at work, HRM practices and

employee engagement had been conducted within health services and among nurses (i.e. El-Gazar & Zoromba, 2021; Nasurdin et al., 2020; Asiamah et al., 2019; Shantz et al., 2016). In fact, most of the earlier studies on spirituality at work, HRM practices and employee engagement towards job performance were carried out in different sector such as mining (Amin et al., 2020), financial (Akhtar, Nawaz, Mahmood, & Shahid, 2016), service (Mahipalan & Sheena, 2018; Alfes et al., 2013b; Jabroun & Balakrishnan, 2000), banking (Ahmed, Kura, Umrani, & Pahi, 2020; Aktar & Pangil, 2018; Sarmad, Iqbal, Ali, & Haq, 2018; Awan & Saeed, 2014; Rizwan et al., 2013; Saeed et al., 2013a), construction (Shantz, Alfes, Truss, & Soane, 2013), insurance (Rastgar, Zarei, Davoudi, & Fartash, 2012), education (Rashidin, Javed, & Liu, 2019; Azeez & Genty, 2018; Jouda et al., 2016; Ojokuku, 2013; Sukimo & Siengthai, 2011), manufacturing (Alghnimi et al., 2020) and also textile (Tanveer et al., 2011).

These studies thereby give less attention in developing country such as Malaysia, especially in public health sector. As Malaysia is a multiethnic country with a diverse culture and social viewpoint, initiated on a study in the context of Malaysia could aid to expand the findings and information in this field. Thus, this study intends to establish the roles of spirituality at work, HRM practices, and employee engagement in influencing nurses' job performance in the Malaysia setting.

Given the importance roles of nurses in determining the efficiency, effectiveness, and sustainability of healthcare system with the interest of understanding the practical and theoretical issues on the factors that influence job

performance of nurses in public hospital in Malaysia, this study therefore will assess the role of employee engagement as a mediator of the spirituality at work, HRM practices and job performance relationship.

1.4 Research Questions

This study was conducted to address the issues of the influence of spirituality at work, HRM practices and employee engagement on the job performance. Accordingly, the following research questions were addressed to further examine the matter:

1) Does spirituality at work influence job performance (task performance and contextual performance)?

2) Do HRM practices (career development, employee participation, performance appraisal and training and development) influence job performance (task performance and contextual performance)?

3) Does spirituality at work influence employee engagement?

4) Do HRM practices (career development, employee participation, performance appraisal and training and development) influence employee engagement?

5) Does employee engagement influence job performance (task performance and contextual performance)?

6) Does employee engagement mediate the relationship between spirituality at work and job performance (task performance and contextual performance)?

7) Does employee engagement mediate the relationship between HRM practices (career development, employee participation, performance appraisal, and training and development) and job performance (task performance and contextual performance)?

1.5 Research Objectives

Specifically, the study intends to examine the relationship between spirituality at work, HRM practices, employee engagement and job performance. Therefore, the objectives of this study are:

1) To identify the influence of spirituality at work on job performance (task performance and contextual performance).

2) To examine the influence of HRM practices (career development, employee participation, performance appraisal, and training and development) on job performance (task performance and contextual performance).

3) To determine the influence of spirituality at work on employee engagement.

4) To examine the influence of HRM practices (career development, employee participation, performance appraisal, and training and development) on employee engagement.

5) To examine the influence of employee engagement on job performance (task performance and contextual performance).

6) To investigate the mediating role of employee engagement between spirituality at work and job performance (task performance and contextual performance).

7) To investigate the mediating role of employee engagement between HRM practices (career development, employee participation, performance appraisal, and training and development) and job performance (task performance and contextual performance).

1.6 Scope of the Study

The objectives of study are to examine the relationship between spirituality at work, HRM practices, employee engagement and job performance. This study focuses on 1,049 of nurses and 331 of sisters who worked in 10 general hospitals because general hospitals are considered as large hospitals and offer a comprehensive range of secondary care services as compared to district hospitals, which only provide basic inpatient care services (Hazilah, 2009).

Meanwhile, nurses were chosen as the sample of this study because nurses are the pillar of the primary healthcare services in general hospitals (Bernama, 2009, August 12) and their performance are regarded as important in provision of quality healthcare (Asiamah et al., 2019; Som et al., 2015; Greenslade & Jimmieson, 2007). Moreover, nurses who serves at public hospitals are chosen because 88,103 from 130,169 of nurses in Malaysia work at public hospitals (Bernama, 2020, May 12).

Specifically, this study focuses on spirituality at work, HRM practices, and employee engagement as predictors of job performance. Given the current demand with multiple occupational stressors of nurses' job, spirituality at work, HRM practices and employee engagement are considered as an important factor in shaping and motivating the performance of nurses as well as improving their work environment (Hisam & Sanyal, 2021; Nasurdin et al., 2020; Vivek, 2019; Wagner et al., 2018; Parker & Griffin, 2011).

1.7 Significance of the Study

This study hopes to offer significant theoretical and practical contributions in the area of nurses' job performance. For the theoretical perspective, this study pursues to contribute to the literature in numerous ways. Firstly, quite a few of empirical research on job performance in nursing context using task performance scale alone. For example, El-Gazar and Zoromba (2021), Ta'an et al. (2020), Asiamah et al. (2019), Cho and Han (2018), Mahat et al. (2018), Safarpour et al. (2018) and Abu AlRub (2004), used Schwirian (1978) Six-D Scale to evaluate job performance of nurses. However, this scale has drawback which only focuses on a certain aspect of task-specific behaviors and generally, nurses' daily tasks involved wide varieties of behaviors (Greenslade & Jimmieson, 2007). In addition, earlier studies (Cho & Han, 2018; Sharma & Dhar, 2016; Islam & Al-Homayan, 2013; Nabirye et al., 2011; Al-Ahmadi, 2009) focused on using self-rating when evaluate their nurses' job performance, which can lead to bias. Hence, this study used nurses' job performance

scale which combines both task-specific behaviors and contextual behaviors as well as focused on supervisory rating when evaluating job performance of nurses.

Secondly, this study examines on several potential factors that might influence nurses' job performance, which are spirituality at work, perceived HRM practices (career development, employee participation, performance appraisal, and training and development) and mediating variable (employee engagement), that received less attention by previous researchers. The influenced of job-related factors such as empowerment, career commitment, job demand, job resources, co-worker support, job stress, job characteristics, motivation, psychological capital and working condition and attitudinal variables such as job satisfaction and organizational commitment have been widely studied. However, the influence of variables such as spirituality at work and perceived HRM practices towards job performance have received less attention. For instance, previous researchers (Fitriasari, 2020; Iyer, 2018; Pasikhani & Kuchesfahani, 2018; Mumtaz, 2017; Wagner & Gregory, 2015) tend to correlate spirituality at work with job satisfaction, work ethics, organizational commitment, and OCB but not with job performance. Further, some of empirical studies (Anwar & Abdullah, 2021; Zainon et al., 2020; Hameed & Mohamed, 2016; Amin et al., 2014) likely to correlate HRM practices with organizational performance rather than individual job performance. Shantz et al. (2016) and Kehoe and Wright (2013) claimed that it is vital to measure HRM practices in terms of employees' views since HRM practices are expected to generate the desired employee outcomes (attitudes and behavior) only when they are consistently experienced, recognized and

interpreted by employees itself. Thus, this study purposes are to enrich in the job performance literature particularly in nursing profession by examining the influence of spirituality at work and HRM practices on job performance at individual level.

Thirdly, previous researchers such as Alfes et al. (2013b), Alfes and Shantz (2011), and Saks (2011) suggested to incorporate the mediating role of employee engagement on the relationship between spirituality at work, HRM practices and job performance. Therefore, this study aims to seek significant theoretical contribution on the mediating role of employee engagement through the examination of the relationship between spirituality at work, HRM practices and job performance. Besides, this study also provides additional knowledge on job performance by combining the self-determination theory (SDT) (Deci & Ryan, 1985) and social exchange theory (SET) (Blau, 1964), particularly in Malaysia nursing context. By introducing employee engagement as mediator in spirituality at work, HRM practices and job performance chain, this study extends previous researchs (i.e. Nasurdin et al., 2020; Rodjam, Thanasrisuebwong, Suphuan, & Charoenboon, 2020; Khan et al., 2019; Choerudin, Haryono, & Cholil, 2014; Ramezani & Ahmadi, 2014; Kehoe & Wright, 2013; Conway & Monks, 2009) which mainly focused on organization commitment, job involvement and job satisfaction as attitude variables.

Moreover, most of earlier studies on spirituality at work, HRM practices and employee engagement towards job performance are carried out in different sector such manufacturing, financial, banking, construction, insurance, education, service

and textile (Alghnimi et al., 2020; Ahmed et al., 2020; Amin et al., 2020; Rashidin et al., 2019; Vivek, 2019; Azeez & Genty, 2018; Mahipalan & Sheena, 2018; Sarmad et al., 2018; Akhtar et al., 2016; Awan & Saeed, 2014; Alfes et al., 2013a; Ojokuku, 2013; Rizwan et al., 2013; Saeed et al., 2013a; Shantz et al., 2013; Rastgar et al., 2012; Sukirno & Siengthai, 2011; Tanveer et al., 2011; Jabroun & Balakrishnan, 2000). However, limited study has been conducted on nurses particularly in Malaysia public health service. Therefore, this study intends to add significant contribution on job performance of nurses in the context of Malaysia public healthcare sector.

Meanwhile, with regard to the practical contributions, the outcomes from this study would be beneficial for improving workplace environment in healthcare context. The integration of spirituality at work and investment in HRM practices in public hospitals could achieve and sustain their nurse's job performance. This is because since the healthcare sector in Malaysia is currently faced with nurse's shortage and turnover crisis, integrating these factors can buffer the negative aspects of nurses' work such as dissatisfaction, job stress and poor performance. There is a need to conduct a study on effect of spirituality at work and HRM practices on nurses since nurses are among crucial group in healthcare and his/her performance directly impact on healthcare organizations (Asiamah et al., 2019; Greenslade & Jimmieson, 2007). Hence, the findings of this study could help Malaysia Ministry of Health, nursing management and human resource practitioners to extend their knowledge on the influence of spirituality at work, HRM practices, and employee engagement towards job performance of nurses. Nursing management and human resource

practitioners can generate ideas on how to integrate and implement an effective HRM programs to create better work environment that would help nurses to achieve and sustain high level of job performance as well as improve their quality of care to patient.

Apart from that, this study would give ideas or guidelines to nurses on the importance of integrating spirituality at work values in their day-to-day job, having positive perception towards organization's HRM practices as well as engaging in work attitude of employee engagement for better job performance. It is believed that the findings from this study will provide a path for the nurses to be more productive toward their work.

1.8 Definition of Key Terms

This section describes the definitions of some of the concepts used in this study for clearer understanding. The definitions of concepts are explained as follow:

1.8.1 Job performance

In this study, job performance of nurses is referring to the effectiveness of the nurses in performing their tasks and responsibilities that contribute to highest level of quality patient care. Further, as followed the definition by Greenslade and Jimmieson (2007), job performance of nurses encompasses two dimensions of performance, which are task performance and contextual performance.

1.8.1.1 Task Performance

Task performance in this study is defined as "the behaviors that are fundamental component of being a nurse based on job description" (Greenslade & Jimmieson, 2007). The four dimensions of task performance are informational support, coordination of care, social support and technical care. **Informational support** refers to giving information and education regarding on patient's condition and treatment to patients and their families. **Coordination of care** refers to updating other nurses in the same department/unit about the patient's condition and treatment and ensuring that other nurses are aware of the patient's history. **Social support** refers to emotional support to patients and their families, which encompassed of talking about any concerns of fears and providing comfort. **Technical care** refers to formulating a plan of care in consultation with patient's families and medical officer such as assisting patients with activities of daily living activities and providing treatments and medication.

1.8.1.2 Contextual Performance

In this study, contextual performance is defined as "behaviors that beyond the job requirements which contribute to the organizational, social, or psychological environment of the hospital" (Greenslade & Jimmieson, 2007). The four dimensions of contextual performance are interpersonal support, job-task support, compliance and volunteering for additional duties. **Interpersonal support** refers to assisting other nurses with their jobs when required, helping new nurses to learn the jobs and providing comfort and emotional support to other staff within the hospital. **Job-task**

support refers to assisting patients and their families by staying late to assist patients and their families and making special arrangement for family members. **Compliance** refers to nurses complying to the hospital's rules and. **Volunteering for additional duties** refers to nurse volunteer to for duties outside his/her recognized job expectation.

1.8.2 Spirituality at Work

According to Ashmos and Duchon (2000), spirituality at work is defined as "the recognition that employees have an inner life that nourishes and is nourished by meaningful work that takes place in the context of community". The three dimensions of spirituality at work are inner life, meaningful work, and sense of community. **Inner life** refers to finding an opportunity at work to express an individual's hopefulness, awareness of personal values, and concern for spirituality. **Meaningful work** refers to involving in work that gives meaning to individual's lives by identifying what is important, energizing, and joyful about work. **Sense of community** refers to living in connection with other human beings by experiencing personal growth, valued for themselves as individuals, and having a sense of working together.

1.8.3 Human Resource Management Practice

According to Wright, McMahan, and Williams (1994), HRM practices are defined as "the organizational activities directed at managing the pool of human resources and ensuring that the resource is employed towards the fulfillment of organizational

goals". The HRM practices proposed in this study are career development, employee participation, performance appraisal, and training and development. **Career development** refers to employees' perception of the organization's career opportunities offered to employee by their organization. **Employee participation** refers to employees' perception on the degree to which employees were allowed to have input about their work and the degree to which organization valued their input. **Performance appraisal** refers to employees' perception towards the evaluation methods practices by their organization and the usage of their performance data in training and performance feedback. **Training and development** refers to employees' perception on availability of training, both formal and informal provided by organization for employees in a job.

1.8.4 Employee Engagement

In this study, employee engagement is defined as "a positive, fulfilling, work related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002). **Vigor** refers to high levels of energy and enthusiasm that the person brings to the work. **Dedication** is characterized by strongly involved in one's work and experiencing a sense of significance and pride, meanwhile, a**bsorption** refers to being fully concentrated and happily immersed in one's work.

1.9 Organization of the Thesis

This study comprised of five main chapters including this Chapter 1. The Chapter 1 discussed about the background of study, problem statement, research questions, research objectives, scope of study, significance of study, definitions of key terms, and lastly organization of the thesis. Chapter 2 contains the relevant literature review regrading on how spirituality at work, HRM practices and employee engagement are correlated with job performance of nurses. This chapter also includes underpinning theory that support the theoretical framework and hypotheses proposed to test in this study. Chapter 3 mainly describes the methodology used to conduct the study, which consists of research design, population and sample, selection of measurement, questionnaire design, pilot study, data collection procedures, and statistical method used to analyze the data. Chapter 4 presents the analysis of data and findings from quantitative research. Finally, Chapter 5 discusses the results from the research that are in line with objective of the study, as well as limitations and implications of the study, recommendations for future studies, and finally conclusion of the study.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of literatures related to the field of job performance, spirituality at work, HRM practices, and employee engagement. Job performance encompasses of task performance and contextual performance. Then, based on the literature, hypotheses, and research framework for understanding the relationship between variables are also presented. To clarify and strengthen the relationship and relevancy of the study variables, underpinning theory was put forward in this chapter. Finally, the chapter concludes with a summary of discussions.

2.2 Definitions and Conceptualization of Variables

The following literature review presents an overview of the definition and conceptualization of job performance, spirituality at work, HRM practices, and employee engagement.

2.2.1 The Conceptualization of Job Performance

Job performance is considered as an important employee behavioral outcome (Shen & Jiang, 2019) which also form a vital part in determining organization's outcomes (Akhtar et al., 2016). Indeed, Mahmoud and El-Sayed (2016) and Som et al. (2015) stated that job performance was used to enhance certain characteristics in employees such as behavior, attitudes, and traits which help to rise the productivity of an organization via meeting the expectations, organizations' rules. Likewise, in healthcare setting, job performance of nurses is regard as important topic since nurses' attitudes and behaviors are vital in

determining the quality of healthcare services delivered to patients (Greenslade & Jimmieson, 2007).

Conventionally, job performance has been viewed as quantity and quality of work (Rotundo and Sackett, 2002). In contrast, job performance is described by Motowildo et al. (1997) as "the extent to which an individual can helps the organization achieve its goals". Similarly, Campbell (1990) and Murphy (1990) perceived job performance as behaviors or actions that are related to the goals of the organization. Viswesvaran and Ones (2000) viewed job performance as actions that can be altered, behavior and product that contributed to the organization's objective. Meanwhile, Motowidlo (2003) refers job performance as "the total expected value to the organization of the discrete behavioral episodes that individual perform within a standard time frame". Simultaneously, Fritz and Sonnentag (2005) looking at job performance concept as employee' behavior that produce positive effects for the individual and beneficial to the organization. Conversely, in the perspective of nursing, nurses who works with government or any private hospitals are required to perform their job tasks relating to healthcare (Asiamah et al., 2019). According to Hee et al. (2016), job performance of nurses aims on recognizing patients' needs by providing proper care and solutions. Hence, nurses' job performance is viewed as how effective nurses are in accomplishing their tasks and responsibilities that contribute to highest level of quality patient care (Abu AlRub, 2004; Asiamah et al., 2019; Schwirian, 1978).

However, even though there are numerous definitions of job performance, there is no clear understanding exists on what precisely represents job performance (Campbell, 1990; Campbell, McHenry, & Wise, 1990) since core job tasks might be different from

job to job (Koopmans et al., 2011). According to Campbell (1990), job performance is typically evaluated by the core task activities. Nevertheless, previous researchers had upgraded the construct of job performance by adding with other behaviors which will support core task activities. For example, Murphy (1990) suggested that job performance can be divided by four categories, task behaviors, interpersonal behaviors, downtime behaviors, and destructive/hazardous behaviors.

In contrast, Campbell (1990) recognized that job performance can be categorized into eight separate components of performance which are job-specific task proficiency, non-job-specific task proficiency, written and oral communication, demonstrating effort, maintaining personal discipline, facilitating peer and team performance, supervision/leadership, and management/administration. Borman and Motowidlo (1993) expand the work of Campbell (1990) and suggested that the domain of job performance can be divided into at least two separate theoretical domains, namely, task performance and contextual performance. While, Rotundo and Sackett (2002) proposed that job performance comprised of three components, namely, task performance, citizenship performance, and counterproductive performance. Further, Koopmans et al. (2011) proposed that job performance comprises of four dimensions, such as task performance, contextual performance, adaptive performance, and counterproductive work behavior.

On the contrary, in nursing context, despite the importance of effective nursing performance, measuring the performance of nurses has been a challenge to nurse researchers for several decades (Fitzpatrick, While, & Roberts, 1994). According to Morrison, Jones, and Fuller (1997), job performance of nurses in healthcare organization is concentrating on delivering quality of care, which is mostly measured using patient

outcomes and achievements of the organization goals. Schwirian (1978) proposed that nursing performance consists of six dimensions, namely, interpersonal relations/communications, leadership, critical care, teaching/collaboration, planning/evaluation, and professional development. In contrast, Greenslade and Jimmieson (2007) developed new scale of nurses' job performance based on job performance model by Borman and Motowidlo (1993) and determined performance of nurses using eight dimensions of job performance, namely information support, coordination of care, social support, technical care, interpersonal support, job-task support, compliance, and volunteering for additional duties.

Previously, scholars and human resource experts have considered job performance as a uni-dimensional construct (Bhatti, Hussain, & Al Doghan, 2018). In contrast, Rana et al. (2019), Blom, Kruyen, Van der Heijden and Van Thiel (2018), Demerouti and Cropanzano (2010), Motowidlo and Van Scotter (1994), and Campbell et al., (1990) argued that job performance is a multidimensional construct which consists of task performance (in-role performance) and contextual performance (extra-role performance). It was supported by previous researchers such as Motowidlo and Van Scotter (1994), Borman and Motowidlo (1993) and Campbell (1990) and that job performance supposed to be evaluates using task performance and contextual performance measure.

Motowidlo (2000) claimed that contextual performance is developed due to concerns that the domain of job performance is being unnoticed by certain researchers and focus only on task performance. Borman and Motowidlo (1997) argued that both facets of performance are important in order to attain organizational objectives since task

performance is focused on behaviors required to completely performed the job tasks or organization technical core while contextual performance is needed to shape the organizational, social, and psychological context in organization. Even though measures of task performance and contextual performance have diverse predictors, but they contribute independently to rating of total job performance (Motowidlo & Van Scotter, 1994) and are reliable for all kinds of jobs (Motowidlo et al., 1997). More importantly, several studies have found that contextual performance contributes uniquely, above and beyond task performance, to job performance (Borman & Motowidlo, 1997; Motowidlo & Van Scotter, 1994). This is in line with Demerouti, Xanthopoulou, Tsaousis, and Bakker (2014) and Johnson (2001) that both contextual performance dimensions and task performance dimensions would be key contributors to the whole job performance rating.

In relation to job performance of nurses, the measurement used by previous researchers (Phaneuf & Wandelt, 1972; Schwirian, 1978) have been found to have limitation and weaknesses whereas the nursing performance constructs concentrated only on certain aspects of task-specific behaviors that nurses do while performing their tasks (Bell & Menguc, 2002) such as critical care and communication. The behaviors that represent contextual performance such as interpersonal support, organization support and job-task support has been ignored.

Traditionally, the nursing profession involved with wide varieties of behaviors that critical to total quality of care (Greenslade & Jimmieson, 2007). At the same time, since there is development of nursing roles that occurred within the healthcare system, the existing measure of nurses' performance requires an updates measure (Seren, Tuna, & Bacaksiz, 2018; Som et al., 2015). As a result, a validated instrument to evaluate job

performance of nurses has been developed by Greenslade and Jimmieson (2007) based on a well-known job performance model by Borman and Motowidlo (1993). The scale comprises of eight aspects of behavior which can incorporates into two categories of performance, namely, task performance and contextual performance. Task performance comprised of four behaviors such as information support, coordination of care, social support and technical care. Meanwhile, behaviors such as interpersonal support, job-task support, compliance and volunteering for additional duties are included in contextual performance. In fact, previous findings found that nurses' performance is determined through both task performance and contextual performance (Tong, 2018; Bakker, Demerouti, & Euwema, 2005).

Further, Borman and Motowidlo (1997) stated that supervisors evaluated equally between task performance and contextual performance when giving rating on their subordinates' job performance. This suggests that supervisory rating is not unidimensional, which at least are a function of task performance and contextual performance (Motowidlo & Van Scotter, 1994). In addition, findings from the study done by Viswesvaran, Ones and Schmidt (1996) reported that interrater reliability in job performance that is described by supervisory evaluation appear to have high rating than peer rating. This suggests that part of supervisor's job is to pay attention to and evaluate their subordinates' performance since supervisor is closely related with subordinates' performance and it is part of their job to do so while peers not (Bakker, Demerouti, & Brummelhuis, 2012). Demerouti et al. (2014) argued that job performance should be measure using supervisory rating as supervisors are well trained to evaluate employee performance and therefore offer more reliable data on employee performance.

Given the fact that job performance of nurses is indirectly influence hospital performance as well as quality patients' care, this study measured job performance using scale developed by Greenslade and Jimmieson (2007) in which comprised of task performance and contextual performance and focuses on supervisory rating. In this study, job performance of nurses is referring to the effectiveness of the nurses in performing his or her roles and responsibilities related to direct patient care.

2.2.1.1 Task Performance

Koopmans et al. (2011) stated that task performance is an important aspect in job performance. While, Goodman and Svyantek (1999) claimed that knowledge, skills and abilities are main characteristics of task related performance. Therefore, Borman and Motowidlo (1993) defined task performance as activities that contribute to the technical core of an organization, vary between different jobs within an organization, contain variability in proficiency, and are role prescribed. Similarly, Motowidlo and Van Scotter (1994) describes task performance as behaviors which creates products or services or support the technical core that enables the production possible. Meanwhile, Motowidlo (2003) perceived the term task performance contained two types of activities. The first type of activities involved with activities that immediately convert unprocessed materials into the products and services provided by the company meanwhile the second type of activities include all activities that support and sustaining the technical core.

On the other hand, in service sector, task performance is described as those behaviors that involved in offering services and assisting customers to address their needs and wants (Liao & Chuang, 2004), which includes behaviors that are main aspects of the

job and behaviors that emerge during encounters with customers (Greenslade & Jimmieson, 2011). While, in nursing context, Yavas, Karatepe and Babakus (2014) perceived task performance as a behavior that is acknowledged by formal reward system and is part of the criteria set out in job description. Similarly, Greenslade and Jimmieson (2007) stated that task performance is the behaviors that are fundamental component of being a nurse based on job description. Examples of task performance in nursing setting includes development and administrating treatments plan for patient (Greenslade & Jimmieson, 2007).

Therefore, this study perceived task performance as the behaviors that are fundamental component of being a nurse based on job description (Greenslade & Jimmieson, 2007). As suggested by Greenslade and Jimmieson (2007), there are four dimensions of task performance, namely information support, coordination of care, social support, and technical care. Information support is defined as giving information and education regarding on patient's condition and treatment to patients and their families while coordination of care is referring to updating other nurses in the same department/unit about the patient's condition and treatment and ensuring that other nurses are aware of the patient's history (Greenslade & Jimmieson, 2007). Social support is viewed as emotional support to patients and their families, which encompassed of talking about any concerns of fears and providing comfort. Meanwhile, technical care refers to formulating a plan of care in consultation with patient's families and medical officer such as assisting patients with activities of daily living activities and providing treatments and medication (Greenslade & Jimmiesion, 2007).

2.2.1.2 Contextual Performance

Motowidlo (2003) defined contextual performance as "behaviors that support organizational effectiveness through its effects on social, psychological, and organizational environment of work in which the technical core must function". Simultaneously, Rotundo and Sackett (2002) referred contextual performance as "behaviors that contributes to the organization goals by contributing to its social and psychological environment". Further, Borman and Motowidlo (1993) divided contextual performance into five categories, namely, volunteering for activities beyond a person's formal job expectations, persistence of enthusiasm and application when needed to complete important task requirements, assistance to others, following rules and prescribed procedures even when it is inconvenient, and openly espousing and defending organization objectives. According to Motowidlo and Van Scotter (1994), contextual performance involved the discretionary and interpersonal behavior that can improved the context in which the task behaviors are performed. Discretionary behaviors are those behaviors that an individual volunteer to do but is not clearly required to do while interpersonal behaviors are those behaviors between people that facilitate task performance.

Therefore, in other words, behaviors that incorporated as contextual performance are less formal behaviors but can promote a favorable social and psychological work environment for the achievement of work in the technical core of the organization (Rana et al., 2019). In service sector, Schneider, Ehrhart, Mayer, Saltz, and Niles-Jolly (2005) defined contextual performance as "those client-directed behaviors that go above and beyond the main components of the job to improve satisfaction". In contrast, contextual

performance in nursing context is perceived as non-job specific behaviors (Mrayyan & Al-Faouri, 2008). Examples of contextual performance in nursing setting includes staying late to help patients and increasing morale of other nurses in the unit. Examples of task performance in nursing setting includes development and administrating treatments plan for patient (Greenslade & Jimmieson, 2007).

In this study, contextual performance is described as behaviors that goes beyond the job requirements of nurses (Greenslade & Jimmieson, 2007). The four dimensions of contextual performance as suggested by Greenslade and Jimmieson (2007) are interpersonal support, job-task support, compliance and volunteering for additional duties. Interpersonal support is viewed as assisting other nurses with their jobs when required, helping new nurses to learn the jobs and providing comfort and emotional support to other staff within the hospital while, job-task support refers to assisting patients and their families by staying late to assist patients and their families and making special arrangement for family members (Greenslade & Jimmieson, 2007). Compliance is defined as nurses complying to the hospital's rules and regulations and volunteering for additional duties refers to nurse volunteer to for duties outside his/her recognized job expectation (Greenslade & Jimmieson, 2007).

2.2.2 The Conceptualization of Spirituality at Work

Spirituality at work has been receiving an increased attention in organizational sciences and is one of the fastest growing areas of new research and inquiry (Albuquerque, Cunha, Martins, & Sa, 2014; Ashmos & Duchon,2000; Case & Gosling, 2010; Giacalone & Jurkiewicz, 2010; Moon et al., 2020). In the meantime, employees are increasingly

looking for hidden meaning and fulfillment in the workplace which focused away from material needs (Habeeb, 2019; Sony & Mekoth, 2019; Marques, 2010; Pfeffer, 2010; Mitroff & Denton, 1999). Pradhan and Jena (2016) argued that majority of employees are reported to be looking for inner peace, meaningful work, and cooperative environment with their colleagues rather than just collecting their salary from organizations. This happen because nowadays, people are working not only with their hands, but also with their hearts or their spirit (Ashmos & Duchon, 2000; Sony & Mekoth, 2019).

Further, previous researchers such as Lazar (2010) and Heaton, Schmidt-Wilk, and Travis (2004) claimed that spirituality at work consists of different components. For example, Duchon and Plowman (2005) and Ashmos and Duchon (2000) viewed spirituality at work in three dimensions (i.e. inner life, meaningful work, and sense of community) while Milliman, Czaplewski, and Ferguson (2003) stated that spirituality at work has three components (i.e. meaningful work, sense of community, and organizational values).

In contrast, Kinjerski and Skrypnek (2006) discussed spirituality at work in four components such as engaging work, sense of community, spiritual connection, and mystical experience. Similarly, Petchsawang and Duchon (2009) divided spirituality in four components (i.e. compassion, mindfulness, meaning at work, and transcendence. Meanwhile, Karakas (2010) divided spirituality at work in three components, namely meaningful work, sense of community, and spiritual self. However, most of the dimensions of spirituality at work used in previous studies include meaningful work, sense of community and inner life (Belwalkar et al., 2018).

Besides, many terms have been used to explain the same concept of spirituality such as workplace spirituality, spirituality in the workplace, spirituality at work, spiritual workplace and spirit at work (Sintaasih, Dewi, Utama, & Mujiati, 2018). However, until today, there is no widely accepted definition of spirituality at work (Kinjerski & Skrypnek, 2004). Sintaasih et al. (2018) stated that the spirituality at work is referring to recognition of employees as the spiritual being and the organization must assist the development of spiritual dimension as the method of acknowledgment that employees are human beings who need value and meaning. While, Mitroff and Denton (1999) claimed that spirituality is about searching a meaning in life, establishing a good relationship with colleagues and balancing between the core values of individual with organization's values

It is in line with Ashmos and Duchon (2000) where spirituality at work is described as "the acknowledgement that employees have an inner life that cultivates and is cultivated by meaningful work that take place within the context of community". Milliman et al. (2003) also suggested that the first dimension in spirituality should include alignment with organization values, instead of inner life. However, Guillory (2000) argued on dimension of inner life suggested by Ashmos and Duchon (2000) that spirituality is the field of inner awareness where individuals express themselves as they work with a sense of inspiration, creativity, and wisdom.

On the other hand, Giacalone and Jurkiewicz (2003) defined spirituality as a "framework of organizational values evidenced in the culture that promotes employees' experience of transcendence through the work process, facilitating their sense of being

connected to others in a way that provides feelings of completeness and joy". They emphasized spirituality as a part of organizational culture that generates an environment of connected with each other and feel part of the community.

Meanwhile, Kinjerski and Skrypnek (2006) formulated a distinct spirituality at work definition which concentrated on the personal experience at workplace, which is different with other researchers (Giacalone & Jurkiewicz, 2003; Milliman et al., 2003; Ashmos & Duchon, 2000; Mitroff & Denton, 1999), who prefer to concentrate on the desires to communicate their being and to be engaged in meaningful work. They characterized spirituality at work in different circumstances that have physical, affective, cognitive, interpersonal, spiritual, and mystical dimensions. In nursing context, spirituality at work is referred to "the unique experience of individuals who are passionate about and energize by their work" (Wagner & Gregory, 2015).

In addition, previous studies indicated that spirituality at work was related with various outcomes such as organizational commitment (Giacalone & Jurkiewicz, 2008; Rego & e Cunha, 2008; Milliman et al., 2003; Ashmos & Duchon, 2000), job behavior (Pradhan & Jena, 2016), employee engagement (Almotawa & Shaari, 2020; Roof, 2015) work performance (Habeeb, 2019; Petchsawang & Duchon, 2012; Duchon & Plowman, 2005;), task performance and contextual performance (Fox et al., 2018) and intention to stay (Milliman, Gatling, & Kim, 2018).

Therefore, the present study defined spirituality at work as the recognition that employees have an inner life that nourishes and is nourished by meaningful work that takes place in the context of community (Ashmos & Duchon, 2000). According to

Pirkola, Rantakokko, and Suhonen (2016) and Lowery, Duesing, and Beadles (2014), the three-dimensional framework of spirituality from Ashmos and Duchon (2000) is the most cited in conceptualizing spirituality at work. Meanwhile, inner life, meaningful work and sense of community have known as a mutually recognized dimensions of spirituality at work (Belwalkar et al., 2018; Houghton, Neck, & Krishnakumar, 2016).

2.2.2.1 Inner Life

The workplace has turned out to be a place for employees to express freedom aspects of their character, discover a sense of meaning and bring their whole selves in workplace (Sarmad et al., 2018; Duchon & Plowan, 2005; Ashmos & Duchon, 2000). Iyer (2018) argued that employee has an inner motive and expect opportunities to express himself at workplace not only physically but emotionally and holistically. Hence, Vaill (1998), defined inner life as the feeling that individuals have about who they are, what they are doing and the contributions they make. In the same line, inner life can be referred as "the extent to which an employee feels hopefulness, awareness of personal values, and concern for spirituality" (Ashmos & Duchon, 2000). In contrast, Duchon and Plowman (2005) stated that inner life is related to two identity constructs, namely individual identity and social identity. Individual identity is about a person's self-concept or a person's inner view of themselves while social identity is related to belonging to a group or unit such as an organization.

Therefore, in other words, inner life is viewed as employees have spiritual needs (inner life), just as they have physical, emotional, and cognitive desires which they bring to work. Based on self-concept theory, employee will experience high motivation when

the person inner life aligns with the job (Shamir, 1991). Albuquerque et al. (2014) claimed inner life as in addition to physical, emotional, and cognitive desires, which means that employees have spiritual desires at work. Thus, in this study, inner life refers to finding an opportunity at work to express an individual's hopefulness, awareness of personal values, and concern for spirituality.

2.2.2.2 Meaningful Work

Meaningful work is originally from job design and work activities, thereby it plays important roles in the perspective of human being as it can develop employees' attitudes and behaviors (Duchon & Ploman, 2005). Milliman et al. (2003) refers meaningful work as about how employees interact with their daily jobs at the individual level. Meanwhile, Sony and Mekoth (2019), Pirkola et al. (2016) and Albuquerque et al. (2014), perceived meaningful work as employees value their job for other motives rather than their salary and material reward. In contrast, Devendhiran and Wesley (2017) defined meaningful work as "an individual's experience at work; in which employee has experienced a sense of fulfillment, joy, and purpose in their work".

According to Belwalkar et al. (2018), every person has his/her inner motivation. It is because they believed that meaningful work is an exploration of self-worthiness, values and purpose (Sarmad et al., 2018). Hence, individual who perceives meaningfulness can experience internal motivation and satisfaction with personal growth and opportunity (Hackman & Oldham, 1976). Meanwhile, individuals who do not perceive the workplace as meaningful and purposeful will not perform up to their professional capacity (Maslow, 1970). Van Wingerden and Van der Stoep (2018) argued that when employees feel that

they are doing a meaningful work, they feel associated with their work and with outcomes of their work. Therefore, this study defined meaningful work as involving in work that gives meaning to individual's lives by identifying what is important, energizing, and joyful about work.

2.2.2.3 Sense of Community

Employees can find a deep connection at work when they experience shared values and mutual sense of purpose (Chappell, 1993). In other words, sense of community is about having deep relation with others, based on assumption that people are related and attached to each other (Ramezani & Ahmadi, 2014). While McMillan and Chavis (1986) defined community as having a sense of belonging, a shared faith which is presented among individuals. According to Devendhiran and Wesley (2017), sense of community inspires employees to keep a friendly relationship with their colleagues, be concerned about the well-being of others and working environment where employees feel appreciated and supported.

Rego and e Cunha (2008) stressed that employees will have a strong identity with the organization when their values and objectives are consistent with the ones presented in the organization. Garcia-Zamor (2003) claimed that low morale, high turnover and recurrent stress-related sickness are known as disruptive working environments. In the same line, Duchon and Plowman (2005) emphasized the character of managers in creating a workplace community in which their subordinates will feel they are belong to the community, identify with its purpose, and establish relationships with others at workplace. Employees can fulfill their needs by using sense of connection and

community because nowadays, employees are spending most of their time at work and less time left for friends or families (Gupta et al., 2014). Hence, this study refers sense of community as living in connection with other human beings by experiencing personal growth, valued for themselves as individuals, and having a sense of working together.

2.2.3 The Conceptualization of HRM Practices

According to Wright and Snell (1991), human capital is a group of human resources under the control of the organization because of the employment relationship that develops between human resources and organization. Past literatures showed that there are various definitions of human resource management (HRM). Basically, HRM practices is usually defined as a set of employee management activities (Vermeeren, et al., 2014) but in a broader perspective, HRM practices refers to a system designed and applied consistently to make sure the employee of the organizations contributes to the success of business goals (Delery & Doty, 1996).

Similarly, Wright, McMahan, and Williams (1994) defined HRM practices as "the organizational activities directed at managing the pool of human resources and ensuring that the resource is employed towards the fulfillment of organizational goals". Meanwhile, Ivancevich (2010) viewed HRM as a function that implemented in the organization to assist in the effective use of human resource to reach the goals of the employees and the organization. Guan and Frenkel (2018) refers HRM practices as to whether several HR practices taken together are seen by employees as distinctive (understood by employees), consistent (applied in same way), and implemented in a consensual manner (agreed by managers).

Therefore, HRM practices also known as an important activity in companies that used to build and shape employees' skills, abilities, and behavior to succeed with their tasks and concentrate on meeting organizational goals (Pamungkas & Wulandari, 2021; Aktar & Pangil, 2018). In contrast, Alfes et al. (2013) viewed perceived HRM practices as employees' general observations of the HRM practices in the context of their organizational. Similarly, Piening, Baluch, and Ridder (2014) regarded perceived HRM practices as employees' subjective perceptions and interpretations of HRM practices that are being employed by organization.

Besides that, Shantz et al. (2016) and Delery and Shaw (2001) argued that HRM practices can be effective when they are part of a systematic program since a single HRM practice without other supporting practices is insufficient to maintain a sustainable performance. Wright et al. (1994) supported that organization used HRM practices to shape the perception, attitudes, and behaviors of employees in a way to improve performance and preferred outcomes.

Further, Huselid (1995) claimed that certain HRM practices can be used to improve job performance and motivation to continue to work. However, there is no agreement on which practice qualifies as an aspect of HRM practices (Boselie, Dietz, & Boon, 2005). Sasongko (2018) suggested that in healthcare organization, the management might need to implement HRM practices that can encourage service-oriented behavior and show concern for employees' organizational and personal needs. Thus, based on Ability-Motivation-Opportunity (AMO) model, HRM practices and policies can be used to influence the individual's ability, motivation and opportunity to perform, which leads

to an improvement of an individual's job performance outcome (Boxall & Purcell, 2008; Delery & Shaw, 2001). The ability to perform is present when employee can do the job, because they have the knowledge and skills required while the motivation to perform is when employees feel valued and incentivized. The opportunity to perform is present when the work structure and environment provide essential support and opportunities to perform (Boxall & Purcell, 2008). Practices such as training and development is seen as enhancing employees' skills, whereas performance appraisal and career development are assumed to enhance employee motivation. Employee participation or involvement in decision making is regarded as being fundamental in promoting opportunities to participate and contribute discretionary effort (Lepak, Liao, Chung, & Harden, 2006).

Previous researchers such as Gomez-Mejia, Balkin, and Cardy (2010), Jabroun and Balakrishnan (2000), Kuvaas and Dysvik (2010), Mohamad and Yahya (2017), Robbins and Coulter (2002) and Sahinidis and Bouris (2008) found that career development, employee participation, performance appraisal and training and development are the important source for organizations to create a group of skilled, motivated, committed, and satisfied workers, that can significantly produce high performing employees. In the same line, Nasurdin et al. (2020) in their study among nurses suggested participation and training affect positive nurses' work attitudes and behaviours, Gunawan et al. (2019b) mentioned that in the area of nursing, training and development, performance appraisal as well as career planning are among effective human resource stategies to demonstrate improved performance and competence among nurses, while, El-Gazar and Zoromba (2021) claimed that nursing human resource practices in terms of training and development and performance appraisal can help to

enhance nursing performance as well as creating hospitals' performance excellence. Hence, the dimensions of HRM practices such as career development, employee participation, performance appraisal, and training and development are found to have a stronger role in predicting the attitudes and behavior of various employees.

Thus, HRM practices proposed in this study are career development, employee participation, performance appraisal, and training and development. This study conceptualizing HRM practices as employees' perception of the organization's career development practice, employee participation practice, performance appraisal practice, and training and development practice. In other words, in healthcare context, perceived HRM practices are referred to the extent to which the nurses understand that their healthcare organization provides support by, for example provides nurses with clear career opportunities in career development, allows nurses to have input about their work and organization valued their input, provides effective evaluation methods as well as usage of performance data in training and performance feedback and provides adequate opportunities for training and development, both formal and informal training.

2.2.3.1 Career Development

According to Mohamad and Yahaya (2017), Gomez-Mejia et al. (2010) and Delaney and Huselid (1996), career development practice is one of the solutions to retain talented and promising employees as well as improving job performance of employees within the organization (Napitupulu et al., 2017). Baruch (2006) refers career as a lifelong journey and thus career development is defined as "a lifelong process and is a formal approach taken by an organization to ensure that people with proper qualifications and experienced

are available when needed" (Zheng & Kleiner, 2001). Lips-Wiersma and Hall (2007) proposed that career development is a result of the interaction between personal career planning and organization career management process. While, according to Gomez-Mejia et al. (2010), career development is an ongoing organized and formalized effort that focused on developing and enriching more capable employees.

In contrast, Saeed et al. (2013a) stated that career development is the process of comparing employee goals with business needs and can be achieved by organizational support. Support from organization play a significant part in employee career development as it relates to career satisfaction (Saeed et al., 2013a) which in turn enhance employee job performance. It was argued that career development is directly linked to employee satisfaction in a way that employees feel valued from their supervisors and organization as their goals are being focused and achievable (Shujaat, Sana, Aftab, & Ahmed, 2013). In healthcare setting, career development practice will help nurses manage their learning and career growth in their nurse's profession. Thus, this study defines career development as employees' perception of the organization's career opportunities offered to them by their organization.

2.2.3.2 Employee Participation

Employee participation is one of the HRM practices that has been used as managerial strategy to give chances for employees to take part in decision making processes and leads to improve in performance, personal growth, and inner motivation (Rosenberg & Rosenstein, 1980; Locke & Schweiger, 1979). Thus, employee participation is defined as "a process in which the influence is shared among individuals who are otherwise

hierarchically unequal" (Locke & Schweiger, 1979). Further, Rosemary et al. (2017) considered participation in decision making as a process which enable the participation of employees in organizational activities that can creates opportunities to utilize employees' individual ideas and mental energy that deepen employees' responsibilities for organizational success and efficiency. In other words, employee participation is referred as any forms by which employees participate in decisions about development activities and their workplace that possess a significant influence on employees in their work (Alghnimi et al., 2020). Involving employees in decision making process and goal setting resulted in removing different barriers of hierarchical organizational structures (Wagner, 1994), thereby allowed employees to have chance to experience a sense of accomplishment in the organization (Jabroun & Balakrishnan, 2000) which also give good influence on employees' commitment and improves job performance (Uma, 2015).

In contrast, lack of employees' participation in decision making process can result in low job satisfaction and commitment of employees (Appelbaum et al., 2013) as well as low employee engagement Kulachai et al. (2018) which thereby effects on their performance and intention to quit. In healthcare setting, participation in decision making will minimize the job demand faced by healthcare employees, because they have chances to raise their problems and give ideas for work arrangements (Beh & Loo, 2012). Thus, nurses should be given opportunities by management to involve in decision making process on issues affecting their daily duties because participation is an effective motivational tool (Uma, 2015). Therefore, this study defines employee participation as employees' perception on the degree to which employees were allowed to have input about their work and the degree to which organization valued their input.

2.2.3.3 Performance Appraisal

According to Rodjam et al (2020), a suitable performance appraisal practice can be considered as a mechanism to motivate, develop and retain employees in organization as well as to determine the employees' ability and also measure employees' performance. Suan and Nasurdin (2014) argued that performance appraisal provides useful feedbacks on employees' performance improvements, which ultimately shape their attitudes and behaviors. Therefore, performance appraisal is defined as "a formal system used by the organization to periodically evaluate an employee's performance" (Dessler, 2011). Ivancevich (2010) defined performance appraisal as an activity that is used to identify and delivered to the employee about his or her job performance, in the extent to which an employee is doing a good job and effectively. Meanwhile, Tsui, Pearce, Porter, and Tripoli (1997) and Delery and Dotty (1996) viewed performance appraisal as a formal process that operated by the organization to identify and respond to employees about their job performance. Sabeen and Mehbob (2008) stated that performance appraisal is a process of judgment and evaluation of subordinate's performance by the supervisor.

In addition, Cheng (2014), Saeed et al. (2013b) and Boswell and Boudreau (2002), claimed that performance appraisal can compare the current or past performance of employees to required standard, hence, encouraged employees to improve their performance (Kaleem, Jabee, & Twana, 2013). According to Shrivasta and Purang (2011), employees' performance appraisal dissatisfaction concerning perceived fairness and effectiveness is prominent. Issues such as, for instance, biased performance assessments generate challenges for ethical decision-making in organizations (Maas and

Torres-González, 2011), and in most cases give rise to employee dissatisfaction with the appraisal process (Kim & Rubianty, 2011).

Effective performance appraisal practices in organization could motivate employees to perform well and increase good behavior in organization such as organizational citizenship behavior, reduce absenteeism, and retain current skills employees (Rodjam et al., 2020). In healthcare setting, effective method of appraisal system and frequent performance reviews can help nurses to enhance their performance and quality of care they provide to patients. Hence, this study defines performance appraisal as employees' perception towards the evaluation methods practices used by their organization and the usage of their performance data in training and performance feedback.

2.2.3.4 Training and Development

Employee training and the provision of suitable training opportunities are key resources for employees (Ahmed et al., 2020) and should involve the new recruited and existed employees (Jouda et al., 2016). Hence, training and development practice can consider as one of the main HRM practices that greatly contributes to improve organizational performance through enhancing employees' job performance (Thevanes & Dirojan, 2018; Jouda et al., 2016). However, according to Jouda et al. (2016), insufficient and poorly designed trained employees are obstacles to organization success. Meanwhile, Dowling and Welch (2004) claimed that the objective of training is to improve current work skills and behaviors, while development goal is to increase the abilities relating to future position or work. Akhtar et al. (2016) and Mondy (2011) stated that training which

emphasis on learning new skills, knowledge, and abilities are needed to perform a tasks or duties or to enhance the performance of existing job or duties, meanwhile development activities focused on expending the employee's prospects, and offers unlimited career advancement opportunities.

Therefore, Ivancevich (2010) refers training and development as an organized process to enhance the skills and capabilities of employees to meet current and future requirements to enable the success of the goals and success of the organization. While Delery and Doty (1996) viewed training and development as "strategies, methods, and procedures to improve the capacity and capabilities of employee". Mondy and Noe (2005) defined training and development as the formal activities performed by the companies to help employees gain the skills and knowledge needed to carry out their existing and future work tasks.

In the same line, training and development in healthcare setting is required to make sure the healthcare services are update on medical developments and new emerging technologies that will impact on quality of care and safety (Arevshatian, Shantz, & Alfes, 2014). Asiamah et al. (2019) argued that in-service training can provides nurses and other healthcare services to new approaches, technologies, standards, and skills related to patients' care. In nursing profession, adequate in training and development practice would help them to gain valuable support, expertise, skills, and abilities to perform more demanding tasks. Accordingly, this study defines training and development as the employees' perception on availability of training, both formal and informal training offered to employees by their organization.

2.2.4 The Conceptualization of Employee Engagement

The concept of employee engagement has received a lot of attentions due to its influence on employee job performance as well as well-being at workplace (Rana et al., 2019). Meanwhile, in nursing context, engagement is becoming important since there is a global shortage of nurses who are the pillar of healthcare services, a political resolution to restrain the rise in healthcare cost and a medical negligence rate that impends the health of nation (Bargagliotti, 2011). As noted by Truss, Delbridge, Alfes, Shantz and Soane (2014), employee engagement is variously called as personal engagement, work engagement, job engagement, employee engagement or engagement while Kim, Kolb and Kim (2012) and Schaufeli and Bakker (2010) refers employee engagement interchangeably with work engagement. It is argued that employee engagement is boarder concept which includes employee expert or occupational role and his/her relationship with organization meanwhile work engagement refers to individual employee's work (Schaufeli, 2013; Schaufeli & Salanova, 2011). However, Macey and Schneider (2008) and Saks (2008) pointed out that positions of work engagement or its component sub-dimensions as a key component of employee engagement. In addition, Saks (2019) suggested that employee engagement was associated with Kahn's (1990) personal engagement study and Schaufeli et al.'s (2002) work engagement study.

On top of that, even though the definitions and measurement of engagement are poorly understood and lack of consistency (Shen & Jiang, 2019; Sun & Bunchapattanasakda, 2019; Keyko, 2014; Markos & Sridevi, 2010; Simpson, 2009; Macey & Schneider, 2008), but still the definitions of employee engagement has been extensively found in practitioners and consulting firms within human resource and

management fields. To date, there is no single and accepted conceptualization on the term 'employee engagement' (Sun & Bunchapattanasakda, 2019; Gupta & Sharma, 2018; Jose & Mampilly, 2012; Markos & Sridevi, 2010; Simpson, 2009). Kahn (1990) first defined employee engagement as the "harnessing of organization members' selves to their work roles. In engagement, people express themselves physically, cognitively, and emotionally during role performance". In addition, Kahn (1990) identifies three psychological conditions such as meaningfulness, safety, and availability. Building on Kahn's (1990) definition of engagement, Rothbard (2001) defined work engagement as "one's psychological presence in or focus on a role" and offered two key components: attention and absorption.

In contrast, Maslach and Leiter (1997) views engagement as different from burnout. Similarly, Garcia-Sierra et al. (2015) argued that engagement in nursing is conceptualized as construct that is different from burnout. In nursing context, Bargagliotti (2011) defined engagement as "the dedicated, absorbing, vigorous nursing practice that emerges from settings of autonomy and trust and results in safer, cost-effective patient outcomes". In the same line, Maslach et al. (2001) characterized engagement as "a persistent, positive affective-motivational state of fulfillment". Later, Schaufeli et al. (2002) proposed different concept of engagement, "a positive, fulfilling, work-related state of mind characterized by vigor, dedication and absorption" and developed a measurement scale known as Utrecht Employee Engagement Scale (UWES). Vigor refers to high levels of energy and enthusiasm that the person brings to the work while dedication is characterized by strongly involved in one's work and experiencing a sense

of significance and, pride (Salanova, Agut, & Peiro, 2005). Absorption refers to being fully concentrated and happily immersed in one's work (Salanova et al., 2005).

In addition, May, Gilson and Harter (2004), conceptualized engagement as the mixture of both cognitive and emotional work- and work-related experiences that makes a person behave while doing the job. Meanwhile, Macey, Schneider, Barbera and Young (2009) defined employee engagement as an individual's sense of purpose and focused energy, evident to others in the display of personal initiative, adaptability, effort, and persistence directed towards organizational goals. In terms of definitions by practitioners, Gallup organization refers employee engagement as "individual's involvement and satisfaction with as well as enthusiasm for work" based on survey collected from almost 8,000 businesses in multiple industries (Harter et al., 2002). Meanwhile, Towers Perrin (2003) in their report describes engagement as employees' willingness and ability to help their company succeed, largely by providing discretionary effort on sustainable basis.

Hence, in this study, employee engagement refers to a positive, fulfilling, work related state of mind that is characterise by vigor, dedication, and absorption (Schaufeli, et al., 2002) as suggested by Keyko (2014) and Simpson (2009) when conducted a study on engagement among nurses. It is because, the definition is referring to a more persistent and universal affective-cognitive state that is not based on any particular object, event, persons, or behavior (Simpson, 2009; Schaufeli, Bakker, & Salanova, 2006) and widely used in the academic literature (Albrecht, Breidhl & Marty, 2018; Gupta & Sharma, 2018; Keyko, 2014). In addition, this definition views engagement as a more stable and

enduring attitudinal frame of mind which could be measured using quantitative method (Bailey, Madden, Alfes & Fletcher, 2017).

2.3 The Relationship between Variables

This sub-topic will review the literature regarding the relationship between spirituality at work, HRM practices, employee engagement, and job performance.

2.3.1 Relationship between spirituality at work and job performance

The concept of spirituality at work emphasized on people who view themselves as spiritual person whose souls need nourishment at work, who experience a sense of purpose and meaning in their work and have connections with each other and with community (Milliman et al., 2003; Ashmos & Duchon, 2000; Mitroff & Denton, 1999). Das and Mukherjee (2018) claimed that spirituality at work helps to motivate employees to function efficiently with full commitment that directly influence employee performance. In the same line, Wei et al. (2020) found that within nurses' context, spirituality at work was strongly related with job performance because spirituality can boost positive behaviors in workplace in terms of quality of nursing care.

Further, according to Sarmad et al. (2018) and Javanmard (2012), employees expect freedom and options at workplace to fully understand and express all aspect of their inner life. Therefore, if they are working in an organization that can give them opportunities to express their inner self, hence, they become more productive worker (Ashmos & Duchon, 2000). Indeed, employees who perceived a clear link between their inner life and their working environment are expected to perform better than others (Charoensukmongkol et al., 2015).

Besides, organization that emphasized on spirituality at work not only achieve higher organizational performance (Ali et al. 2021) but also result in flexibility and creativity (Ramezani & Ahmadi, 2014). Likewise, Duchon and Plowman (2005) and Mitroff and Denton (1999) argued that organization whose work have stronger meaningfulness could make it possible for their employees to show more creativity, flexibility as well as higher job performance. Indeed, by providing meaningful work content, employees will enjoy with their work which directly enhance their job performance (Do, 2018; Javanmard, 2012). Besides, employees with high spiritual values and perceived their job as meaningful are willingly to perform extra-role behavior (Charoensukmongkol et al., 2015).

At the same time, Duchon and Plowman (2005) and Milliman et al. (1999) suggested that higher job performance and commitment is due to strong sense of community and strong purposeful organization goals. In hospital context, a high level of teamwork among healthcare workers, will make employees experience a positive sense of community (Do, 2018). Likewise, when employees felt they were part of organization, treated fairly in workplace, their work resulted in personal growth and there was togetherness in resolving the conflicts positively will encourage employees to experience sense of community that could lead to enhance job performance (Sintaasih et al., 2018).

Further, several empirical studies found significant and positive influence of spirituality at work on job performance. For example, a study by Sintaasih et al. (2018) among 363 administrators of LPD in Bali province found that spirituality at work had a positive and significant effect on job performance of employees. Recent study done by

Mousa (2020) among 145 members of Abu Dhabi University reveal that spirituality at work is significant and positive influence with employee job performance. Within, nurse's context, empirical study conducted by Pasikhani and Kuchesfahani (2018) reported a significant influence of inner life, meaningful work, sense of community, and alignment with organization values with contextual performance (organizational citizenship behavior). Likewise, Marwan, Rajak and Abubakar (2019) in their study among nurses in regional general hospital found that spirituality at work have significant effect on nurse performance.

To sum, spirituality at work could be used to improve the working environment (Wagner et al., 2018) as well as facilitate job performance of employee in organization (Mousa, 2020). In healthcare context, nurses could achieve high performance in their jobs when they can express their needs for inner life at workplace, they feel that their job is meaningful and purposeful, and they feel connectedness and being valued with their colleagues particularly in delivering the quality of care to patients. Thus, spirituality at work could expect to enhance job performance of nurses. Following the discussions above, this study tends to hypothesize that:

H1: There is significant and positive relationship between spirituality at work and job performance (task performance and contextual performance).

2.3.2 Relationship between HRM practices and job performance

Guest (2001) argued that the influenced of HRM practices on employee performance depends on how employees' response to their organization's HRM practices. If employees perceived positive perceptions to the HRM practices, then their performance

is expected to increase and vice versa. Alghnimi et al. (2020) and Vivek (2019) argued that HRM practices are effective tools in influencing employees' behavior, shaping their attitudes and developing their expertise in a way that enhancing performance of employees. For example, a good action plan in career development activities used to signal employees about how organization has taken care on their career path, which then contribute to improving job performance of employees (Napitupulu et al., 2017). While employee participation in decision making could be used as an effective motivational tool to influence employee to be more motivated in implementing the required tasks which will increase employees' commitment as well as improve their job performance (Uma, 2015). Training and development activities which involves with sharpening employee skills, changing of attitudes, and gaining more knowledge can boost job performance (Fatema, 2018). Meanwhile, good performance appraisal in which employee received on particular goals and objectives can motivate employees to perform well and boost good behavior at workplace (Rodjam et al., 2020). Hence, consistent with Social Exchange Theory (Blau, 1964), within healthcare context, when nurses perceived that their organization has provided enough resources and support via HRM practices (i.e. career development, employee participation, performance appraisal and training and development), nurses tend to reciprocate positively by showing favorable behaviors through efficient task performance and contextual performance.

However, past literatures reported inconclusive results on the influenced of HRM practices on job performance (Khan et al., 2019). For example previous studies in different organizations and contexts found job performance is positively and significantly influenced by the certain aspect of HRM practices such as career development (Otoo &

Mishra, 2018; Mohamad & Yahya, 2017; Tiwari, 2011), employee participation (Alghnimi, et al., 2020; Rosemary et al., 2017; Rizwan et al., 2013; Sukirno & Siengthai, 2011; Jabroun & Balakrishnan, 2000), performance appraisal (Ismail et al., 2019; Khan et al., 2019; Vivek, 2019; Khan et al., 2017; Jouda et al., 2016; Khalid et al., 2014; Ojokuku, 2013; Saeed et al., 2013b), and training and development (Asiamah et al., 2019; Khalid et al., 2019; Khan et al., 2019; Otoo & Mishra, 2018; Awan & Saeed, 2014; Aarabi et al., 2013; Tiwari, 2011).

For instance, a study conducted by Mohamad and Yahya (2017) in local authority organization in central region of Malaysia found that career development was significantly and positively related with employee job performance. Similarly, Otoo and Mishra (2018) found significant and positive relationship between career development and training and development and job performance of employees who works at trade and manufacturing sectors in Ghana. Besides, an empirical study by Asiamah et al. (2019) among nurses serving in healthcare institutions in Ghana reported a significant and positive relationship between training and nursing job performance.

Meanwhile, a study by Ismail et al. (2019) in state owned polytechnics in Nigeria found performance appraisal practice have significant and positive predictor of employee job performance. Likewise, a study performed by Khan et al. (2019) among 250 academic staff of six public sector universities in Pakistan found performance appraisal was significantly and positively influence employee job performance. In addition, Rizwan et al. (2013) in a study among employees working in private banks found a significant and positive relationship between employee participation and job

performance. In the same line, recent study done by Alghnimi et al. (2020) in Iraq reported that employee participation was significant and positive with job performance.

In contrast, several studies reveal aspect of HRM practices such as career development (Napitupulu et al., 2017; Khalid et al., 2014), employee participation (Kulachai et al., 2018; Khalid et al., 2014; Aleem et al., 2012), performance appraisal (Otoo & Mishra, 2018; Aleem et al. 2012; Tiwari, 2011), and training and development (Fatema, 2018; Salleh et al., 2011; Lamratanakul et al., 2010) do not related with job performance.

Accordingly, based on inconsistent findings and discussions above this study hypothesized that:

H2: There is significant and positive relationship between HRM practices (career development, employee participation, performance appraisal, and training and development) and job performance (task performance and contextual performance).

H2.1: There is significant and positive relationship between career development and job performance (task performance and contextual performance).

H2.2: There is significant and positive relationship between employee participation and job performance (task performance and contextual performance).

H2.3: There is significant and positive relationship between performance appraisal and job performance (task performance and contextual performance).

H2.4: There is significant and positive relationship between training and development and job performance (task performance and contextual performance).

2.3.3 Relationship between spirituality at work and employee engagement

Several researchers have directly posited that spirituality at work influenced employee engagement (Almotawa & Shaari, 2020; Iqbal et al., 2020; Rathee & Sharma, 2019; Saks, 2011). Saks (2011) claimed that there is evidence of link between spirituality at work and employee engagement because both are related to the individual's emotions and human spirit in the workplace and how to meet the higher level of employee needs (Quatro, 2004). In the same line, Roof (2015) stated that spirituality plays an important role to respond to the global decrease of employee engagement at work. Krishnakumar and Neck (2002) recommended that organizations with high spiritual values are more effective in engaging employees' souls than in less valued organizations (Jurkiewicz & Giacalone, 2004). Likewise, organization studies have supported the concept of spirituality at work to generate meaningful work, enjoyment, and hopefulness at workplace which can trigger employee engagement (Pradhan & Jena, 2016).

Meanwhile, at employee level, spirituality emphasized inner self, meaningful work and sense of community that offers purpose and engagement (Ashmos & Duchon, 2000). Individual with high spiritual value tends to show a higher tendency to seek important job roles (Margaretha et al., 2021). When employee get engaged in their work, he/she is not only working with their hands but also with their hearts or their spirit (Sony & Mekoth, 2019; Devi, 2016) because he/she feels that exercising a healthful effort

generates a feeling of psychological satisfaction for accomplishing an organization role (Kahn, 1992). Iqbal et al. (2020) stated that when employees perceived that their organization provides high spirituality in workplace, they will engage in more meaningfulness understanding of meaning, purpose, feel the impact and satisfaction while performing their work responsibility. In other word, spiritual experience at work encourages individual to seek their full potential and experience greater sense of intrinsic motivation (Osman-Gani, Hashim, & Ismail, 2013) and self-fulfillment (Pawar, 2009), which lead to enhanced employee engagement. Indeed, Rashidin et al. (2019) argued that spirituality at work is key factor of employee engagement and satisfaction at workplace.

In addition, study conducted by Mahipalan and Sheena (2018) among 353 professional service consultants found significant and positive influenced of inner life, meaningful work, sense of community and alignment of values with employee engagement. Similarly, study by Lianto, Eliyana and Fauzan (2018) among 100 employees in West Kalimantan found that inner life, meaningful work and sense of community have significant and positive relationship on employee engagement.

Likewise, study done by Rashidin et al. (2019) in Chinese university faculty reported that spirituality at work have significantly and positively relationship on employee engagement and satisfaction at workplace. Recently, Margaretha et al. (2021) in their study among lecturers in Indonesia found that spirituality at work which consists of inner life, meaningful work, and sense of community have significant and positive effect on employee engagement. Besides, based on Self Determination theory, in healthcare context, nurse who engage in what they do also experience higher physical and

psychological wellbeing as compared to those who are motivated or lack of personal control (Ryan & Deci, 2000). Hence, a successful employee engagement can be achievable when organization is able to create work environment that give nurses to express their inner strength, meaningful work assignment and connectedness colleagues around them. Following the above discussion, it is hypothesized that:

H3: There is significant and positive relationship between spirituality at work and employee engagement.

2.3.4 Relationship between HRM practices and employee engagement

Guest (2014) and Jose and Mampilly (2012) suggest that a set of HRM practices in organization have significant influence on the employees' engagement level. In the same line, Albrecht, Bakker, Gruman, Macey, and Saks (2015) mentioned that in organization setting, an integrated HRM practices and policies could lead to high level of employee engagement. Indeed, past empirical studies by Alfes et al. (2013b) and Alfes et al. (2013a) reported that perceived positive perception by employees on HRM practices were significantly influenced employee engagement.

Schaufeli and Salanova (2011) noted that career development courses and work-related training programs aimed solely on self-growth while development used to promote engagement among employees. Likewise, Ahmed et al. (2020) argued that career growth and development opportunities can considered as an important HRM practice that can boost employee engagement. Therefore, career development practice could trigger employees to stay engaged at work because employees may feel they are

being valued by organization and thereby, they will be more concentrated on devoting their time and energy in their work (Gruman & Saks, 2011).

On the other hand, May et al. (2004) states that it is crucial for managers to inspire their subordinates to solve work-related problems and take part in decision making, to use open communication, and to show a sense of care for employees in order to increase engagement. Hence, employee's opportunity to take part in decision making process will boost high level of employee engagement above and beyond coworker and supervisor satisfaction (Hinkel & Allen, 2013).

Besides, Gupta and Kumar (2013) stated that perception of performance appraisal fairness in terms of distributive and informational justice is significant with employee engagement. Shrivastava and Purang (2011) stated that employees' performance appraisal dissatisfaction concerning perceived fairness and effectiveness is prominent. Issues such as, for instance, biased performance assessments generate challenges for ethical decision-making in organizations (Maas and Torres-González, 2011), and in most case gives rise to employee dissatisfaction with the appraisal process (Kim & Rubianty, 2011). Macey and Schneider (2008) claimed that when employees evaluated fairly by their supervisor or manager, they will reciprocate by devoting their time, energy and become more dedicated to their work which lead to enhance greater level of engagement.

Further, Ahmed et al. (2020) and Kahn (1990) states that organizations should provide resources to their employees through training and development program to make them feel that they have ability to perform in a better way. According to Azeem, Rubina and Paracha (2013), employee engagement will enhance if the organization provides

employees with the right training and development programs. Similarly, Bohlander and Snell (2013) argues that training and development are key factors in maintaining engagement level. Hence, positive perception from employees about responsive availability and satisfaction of training needs could significantly enhance engagement (Ahmed et al., 2020).

A few empirical findings have reported significant relationship between HRM practices and employee engagement. For instance, a study by Jouda et al. (2016) among 115 of faculty and non-faculty members working at university in Palestine reported a significant and positive relationship between performance appraisal and training and development with employee performance. Meanwhile, Aktar and Pangil (2018) in their study at 30 private banks in Bangladesh discovered a positively and significantly relationship of career development, employee participation and training and development with employee engagement. Likewise, an empirical study by Ahmed et al. (2020) in six large banks in Pakistan shown a significant and positive relationship between career development opportunities and training and development opportunities with engagement. Recently, a study of 457 frontline employees in Vietnamese banking industry reveal a significant and positive relationship between employee participation and training and development with employee engagement (Vuong & Sid, 2020).

Furthermore, consistent with Social Exchange Theory by Blau (1964), reciprocal relationship might be achieved via a sequence of interaction between two parties (employees and employer) that are in a state of reciprocate interdependence and felt obligated. Therefore, when organization through HRM practices such as career

development, performance appraisal, employee participation and training and development can create positive perception in employees about being valued and willing to facilitating resources, employees will feel satisfied with HRM practices, and they will repay to organization through positive attitude of employee engagement. Likewise, Menguc, Auh, Fisher, and Haddad (2013) argued that when employees receive benefits and resources from their organization, they will fell that organization valued their effort and have a tendency to engage more at work as a repayment. Hence, it is postulated that:

H4: There is significant and positive relationship between HRM practices (career development, employee participation, performance appraisal, and training and development) and employee engagement.

H4.1: There is significant and positive relationship between career development and employee engagement.

H4.2: There is significant and positive relationship between employee participation and employee engagement.

H4.3: There is significant and positive relationship between performance appraisal and employee engagement.

H4.4: There is significant and positive relationship between training and development and employee engagement.

2.3.5 Relationship between employee engagement and job performance

Employee engagement in any organization is believed to play a significant part in helping the organization gain a competitive advantage (Albrecht et al., 2015). According to Rana et al. (2019), George and Joseph (2015) and Kim et al. (2012) and, an engaged employee

is considered as an important and valuable asset for organization to maintain their organizational effectiveness in the long term. At the same time, some studies had established a significant relationship between employee engagement and organizational performance in terms of financial results and business unit performance (Badal & Harter, 2014; Macey et al., 2009; Baumruk, 2004; Harter et al., 2002) and customer satisfaction (Salanova et al., 2005). In addition, study by Aon among Malaysia organization from various industries found that a 5% increase in employee engagement was correlated with a 3% increase in revenue growth over the next year (Zainul, September 6, 2018).

However, Li et al. (2019), Rana et al. (2019), Kim et al. (2017), and Carter et al. (2016) stated that there is limited empirical studies on employee engagement and job performance. In contrast, Saks (2019) claimed there is strong evidence that engagement improves task, contextual performance, general health and well-being outcomes such as stress, strain and burnout. Meanwhile, Demerouti and Cropanzano (2010) and Parker and Griffin (2010) suggested that employee engagement contributes to higher performance by generating positive feelings which in turns increase motivation to perform job tasks and responsibilities. In the same line, Vuong and Sid (2020) also considered employee engagement as a significant predictor in increasing job performance.

Guest (2014) stated that engagement can generate motivation, commitment, citizenship behavior, well-being as well as performance. Indeed, a number of studies have suggested that employee engagement is one of the factors in promoting a high level of employee performance (Ismail, Iqbal, & Nasr, 2019a; Anita, 2014; Menguc et al., 2012; Mone & London, 2010; Rich, Lepine, & Crawford, 2010). Further, several review

studies found that employee engagement not only improve employees' job performance but also contributes to positive changes in employees' attitudes and behaviors (Motyka, 2018; Bailey et al., 2017; Christian, Garza, & Slaughter, 2011; Demerouti & Cropanzano, 2010; Harter et al., 2002).

In addition, an engaged employee not only performs the duties that he/she assigned for but also willing to perform extra duties that is going beyond their job description (Christian et al., 2011; Markos & Sridevi, 2010; Rich et al., 2010; Salanova et al., 2005). Likewise, a few studies found that an engaged employee were expected to show in extra-role performance (Shen & Jiang, 2019; George & Joseph, 2015; Rurkkhum & Bartlett, 2012). In healthcare context, Vuong and Sid (2020), Shantz et al. (2016), Garcia-Sierra et al. (2015), Freeney and Fellenz (2013), and Bargagliotti (2011) suggest that engagement can improve the nurse's job performance, provision of quality care, staff retention, reduce hospitals mortality rates, patient experience, wellbeing of community and indirectly increase financial stability of organization. Following the above discussions, this study tends to hypothesize that:

H5: There is significant and positive relationship between employee engagement and job performance (task performance and contextual performance).

2.3.6 Employee engagement mediates the relationship between spirituality at work and job performance

Employee engagement has been considered as a mediating variable in this study between spirituality at work and job performance of nurses. Previous researchers claimed there is a need to explain the mechanism through which spirituality at work effect job

performance (Fox et al., 2018; Duchon & Plowan, 2005; Garcia-Zamor, 2003; Giacalone & Jurkiewicz, 2003; Ashmos & Duchon, 2000). At the same time, Sun and Bunchapattanasakda (2019) claimed that less studies have been conducted on examining the mediating role of employee engagement as well as a limited studies have empirically analyzed on how spirituality at work influences job performance through mediating variable (Moon et al., 2020).

However, some empirical studies seem to confirm the existence of indirect association exist between spirituality at work and performance (Fox et al., 2018). For instance, study by Sintaasih et al. (2018) among administrator reported that inner life, meaningful work and sense of community had significant effect on job performance through organizational commitment. On the other hand, Belwalkar et al. (2018) conducted a study in Indian private sector banks found that inner life, meaningful work and interconnectedness/community effect organizational citizenship behavior (contextual performance) through job satisfaction. Meanwhile, Genty, Fapohunda, Jayeoba, and Azeez (2017) in their study found inner life, meaningful work and sense of community influence organizational citizenship behavior through normative organizational commitment. It is importance to notice that each of empirical studies described are carried out outside Malaysia and all of studies tend to show that there is a link between spirituality at work and job performance.

Besides, Saks (2011) suggested to integrate employee engagement as mediating mechanism by which spirituality influence job performance. It is because employee engagement can be utilized as mediating variable to boost positive behavior and intention

of employees towards achieving higher job performance (Andrew & Sofian, 2012). In the same line, Ahmad and Omar (2015) stated that spirituality at work would motivate employees to engage which significantly enhance organizational citizenship behavior (contextual performance). Consequently, the present study will examine the mediating role of employee engagement on the relationship between spirituality at work and job performance among nurses which is yet to be explored in the literature.

In essence, in healthcare context, the researcher believes that nurses incline to be more engaged while performing their tasks when they feel that their intrinsic need satisfaction such as autonomy (inner life), competence (meaningful work), and relatedness (sense of community) has been met and in turn lead to job performance. From the above statements, it is postulated that:

H6: Employee engagement mediates the relationship between spirituality at work and job performance (task performance and contextual performance).

2.3.7 Employee engagement mediates the relationship between HRM practices and job performance

In this study, employee engagement has been considered as a mediating variable between HRM practices and job performance relationship. Shantz et al. (2016) and Bowen and Ostroff (2004) stated that there is a need to determine the variable that could mediate the HRM practices and performance chain. At the same time, previous researcher such as Alfes and Shantz (2011) suggested to include employee engagement as mediating mechanism through which HRM practices affect individual performance. Meanwhile, Gruman and Saks (2011) argued that an engaged employee who are prepared with right

tools, managed by right systems and processes and get assisted through proper guidance, can deliver superior performance. According to Vuong and Sid (2020), HRM practices show an important part in increasing engagement level which directly improving employee job performance. Besides, based on strong basis on Social Exchange Theory (Blau, 1964), employee engagement serves as mediator on the relationship between HRM practices and job performance. Hence, it is important to interpretate the 'black box' on employee attitudes which will mediate the relationship between HRM practices and performance (Kusu & Gowtham, 2020).

In the same line, employees' positive attitude towards these HRM practices lead them to be engaged with the job in organization. Hence, positive relationship exists between HRM practices and employee engagement. For example, several studies have shown that employees' level of engagement is determined by the dimension of HRM practices such as career development (Ahmed et al., 2020; Alfes et al., 2013a; Albrecht, 2012), employee participation (Alghnimi et al., 2020; Shantz et al., 2016; Hinkel & Allen, 2013), performance appraisal (Suan & Nasurdin, 2014; Gupta & Kumar, 2013), and training and development (Vuong & Sid, 2020; Aktar & Pangil, 2018; Suan & Nasurdin, 2014; Azeem et al., 2013). Moreover, some studies on employee engagement reveal that employee engagement have positive influence on the job performance of employees. For instance, empirical studies by Ismail et al. (2019), Shen and Jiang (2019), Carter et al. (2016), Anitha, (2014), Dalal, Baysinger, Brummel, and Lebreton (2012) and have found employee engagement significantly related to job performance.

In addition, the literatures in different organizations and contexts claimed that job performance is affected by the certain aspect of HRM practices such as career development (Otoo & Mishra, 2018; Mohamad & Yahya, 2017; Saeed et al., 2013b ; Tiwari, 2011), employee participation (Alghnimi, et al., 2020; Rosemary et al., 2017; Sukirno & Siengthai, 2011; Jabroun & Balakrishnan, 2000), performance appraisal (Ismail et al., 2019; Khan et al., 2019; Vivek, 2019; Ojokuku, 2013; Tanveer et al., 2011), and training and development (Asiamah et al., 2019; Khalid et al., 2019; Khan et al., 2019; Otoo & Mishra, 2018; Aarabi et al., 2013; Tiwari, 2011). When employees are satisfied with these aspects of HRM practices, they tend to perform more for achieving the objectives of the organization. According to Zhao, Lynch Jr and Chen (2010), mediation should be measured by the size of indirect effect (path a x path b) rather than the direct effect (patch c').

Additionally, previous literatures supported that HRM practices have positive influence on employee engagement (path a) and employee engagement has positive influence on job performance of employees (path b). Therefore, employee engagement fulfils the condition of mediating variable between the relationship of HRM practices and job performance.

In essence, in healthcare context, the researcher believe that nurses tend to become more engaged in their job when they feel that their organization provide clear career planning, they are participated in most of decision-making process on matters related to their daily duties, they received feedback about their performance level and work objectives, and they are being provided with adequate training opportunities to

enhance their skills, abilities and knowledge. When nurses fully engaged with positive state of mind, their job performance will increase as well. Therefore, it is hypothesized that:

H7: Employee engagement mediates the relationship between HRM practices (career development, employee participation, performance appraisal, and training and development) and job performance (task performance and contextual performance).

H7.1: Employee engagement mediates the relationship between career development and job performance (task performance and contextual performance).

H7.2: Employee engagement mediates the relationship between employee participation and job performance (task performance and contextual performance).

H7.3: Employee engagement mediates the relationship between performance appraisal and job performance (task performance and contextual performance).

H7.1: Employee engagement mediates the relationship between training and development and job performance (task performance and contextual performance).

2.4 Gaps in the Literature

A review of relevant literatures suggests several gaps still exist in the extant body of knowledge. Firstly, several studies on job performance (i.e Nasurdin et al., 2020; Nasurdin et al., 2018; Mahat et al., 2018; Arshad et al., 2016; Hee et al., 2016) have been

performed in healthcare context, but these studies were conducted among nurses who worked in private hospitals. Mousa (2020) suggested to study what variables could influence job performance since there is small number of studies have been conducted on public service (Johari et al., 2019).

In addition, this study evaluate job performance of nurses by incorporates both task and contextual performance. The conceptualization of job performance will focus specially for nurses which are developed by Greenslade and Jimmiesion (2007) based on job performance model proposed by Borman and Motowidlo (1993). It is because previous studies on job performance of nurses (i.e El-Gazar & Zoromba, 2021; Ta'an et al., 2020; Asiamah et al., 2019; Safarpour et al., 2019; Cho & Han, 2018; Mahat et al., 2018), only focused exclusively on task performance alone by using Schwirian (1978) six-D scale. The current study will adapt job performance scale which incorporates both task and contextual behaviors since research in the job performance literature has noted that such task-specific behaviors are not sole predictor of positive outcomes for clients (Bell & Menguc, 2002). Supervisors' rating also were used to evaluate job performance of nurses as suggested by Nasurdin et al. (2020) and Gunawan et al. (2019b). Therefore, this study tends to test the scale in Malaysia context in order to enrich the empirical studies in the field of nurses.

Secondly, this study examines the influences of spirituality at work on job performance. Although there are wide studies on spirituality at work is growing, there is only small number of empirical studies on spirituality at work, which need further empirical examination (Hisam & Sanyal, 2021; Sony & Mekoth, 2019) since it rarely discussed in scope of management (Amin et al., 2020). Moreover, previous studies likely

to correlate spirituality at work with other variables than job performance such as job satisfaction, work ethics, organizational commitment, and organizational citizenship behavior (Fitriasari, 2020; Iyer, 2018; Pasikhani & Kuchesfahani, 2018; Yusof et al., 2018; Mumtaz, 2017). The current study examined the relationship of spirituality at work and job performance since only a few studies used spirituality as predictor to influence job performance (Habeeb, 2019) despite the recommendation by previous researchers such as Amin et al. (2020), Belwalkar et al. (2018) and Riasudeen and Prabayathy (2011) to determine the relationship of spirituality at work with employees' attitudes and behaviors.

Thirdly, while there is wide agreement on the importance of HRM practices on organizational performance (Anwar & Abdullah, 2021; Zainon et al., 2020; Hameed & Mohamed, 2016; Amin et al., 2014), there is small number of studies on HRM practices influenced job performance especially in healthcare context (Kusu & Gowthan, 2020; Surji & Sourchi, 2020). Also, because organizations are more likely to make strategic choices by taking up some HRM practices and rejecting the others (Zheng et al., 2009; Subramony, 2006), it means that some HRM practices affect job performance and might therefore be a valuable resource for firms wishing to increase job performance of their employees (Karlsson, 2013; Beugelsdijk, 2008; Huselid, 1995). Following this argument, four HRM practices (i.e. career development, employee participation, performance appraisal, and training and development) which was suggested by El-Gazar and Zoromba (2021), Nasurdin et al. (2020), and Gunawan et al. (2019b) are hypothesized to influence job performance of nurses in public hospitals (task performance and contextual

performance) since these practices are expected to enhance positive employee behaviors and outcomes.

However, Khan et al. (2019) reported on mixed findings of HRM practices and job performance. For instance, Otoo and Mishra (2018) and Mohamad and Yahya (2017) found significant relationship between career development on job performance, while Khalid et al. (2014) reported insignificant result. Alghnimi et al. (2020) and Rosemary et al. (2017) reveals positive and significant result on employee participation on job performance, in contrast, Kulachai et al. (2018), Khalid et al. (2014) and Aleem et al. (2012) found no significant relationship. Further, Ismail et al. (2019), Vivek (2019) and Khan et al. (2019) reported significant influence between performance appraisal on job performance, but Otoo and Mishra (2018), Tiwari (2011) reveal no significant influences. Researchers such as Asiamah et al. (2019), Khan et al. (2019) and Otoo and Mishra (2018) found that training development significantly and positively influenced job performance, meanwhile, Fatema (2018) and Salleh et al. (2011) reported no significant relationship.

Fourthly, this study assesses the mediating influence of employee engagement on the relationship between spirituality at work, HRM practices and job performance. Saks (2011) suggested that employee engagement mediates the relationship between spirituality at work and job performance while Alfes and Shantz (2011) suggested incorporating employee engagement as mediating mechanism through which HRM practices influence individual performance. Andrew and Sofian (2012) argued that by utilizing employee engagement as mediator variable could increase positive behavior and

intention of employees towards a higher job performance. In the same line, Moon et al. (2020) suggested to empirically examined the relationship of spirituality at work and job performance through employee engagement. Meanwhile, Kusu and Gowtham (2020) recommended to examine on 'black box' of employee attitudes which will mediate the relationship between HRM practices on job performance. In attempt to address this issue, the current study will test mediating effect of employee engagement on the relationship between spirituality at work, HRM practices and job performance.

Finally, the current study extends previous research on the relationships of spirituality at work and HRM practices with job performance by examining these relationships in the Malaysia public sector, namely public hospital services. In recent years, many studies have shown increased interest in examining the relationship between spirituality at work and HRM practices with job performance in different sector such as banking (Ahmed et al., 2020; Aktar & Pangil, 2018; Sarmad et al., 2018; Awan & Saeed, 2014), manufacturing (Alghnimi et al., 2020), insurance (Rastgar et al., 2012), education (Rashidin et al., 2019; Jouda et al., 2016; Ojokuku, 2013), financial (Akhtar et al., 2016), service (Mahipalan & Sheena, 2018; Alfes et al., 2013b; Jabroun & Balakrishnan, 2000) and also textile (Tanveer et al., 2011).

However, less is known about the nature of this relationship in Malaysia. As Malaysia is a multicultural country with a unique culture and social viewpoint, initiated on a study in the context of Malaysia will help expand the database in this field.

2.5 Underpinning Theory Used in the Study

This study incorporated two underlying theories, namely Self-Determination Theory (Deci & Ryan, 1985) and Social Exchange Theory (Blau, 1964). It is because Self-Determination Theory (SDT) acknowledges both internal and external motivations when considering how people behave (Meyer & Gagne, 2008). Meanwhile, Social Exchange Theory (SET) well established to explain workplace behaviors between organization and employees based on norms of reciprocity (Sun & Bunchapattanasakda, 2019; Cropanzano & Mitchell, 2005). Both theories are identified to be applicable in explaining the theoretical framework of the study.

2.5.1 Self-Determination Theory (SDT)

The Self-Determination theory (Deci & Ryan, 1985; Ryan & Deci, 2000) postulates that the motivational preferences that guided behavior have significant results for healthy behavioral regulation and psychological well-being. This theory is regarded as motivational framework that ties the focus towards extrinsic and intrinsic motivation (Deci & Ryan, 1985) which assume that every person has an innate desire for personal growth and development (Deci & Ryan, 2000). Meyer and Gagne (2008) defined intrinsic motivation as performing a task for its own sake out of enjoyment and interest whereas extrinsic motivation is referring to performing a task for material benefits that the task contributes to.

Besides, this theory claims that the secret to self-regulation is satisfaction of basic psychological needs for continuing psychological growth, well-being, and integrity, namely needs for competence, relatedness, and autonomy (Meyer & Gagne, 2008).

According to Gagne and Deci (2005), in organizational settings, the satisfaction of the three basic psychological needs will contribute to high levels of intrinsic motivation and the internalization of external values, resulting to positive work-related outcomes such as increase performance, positive attitudes and behaviors, psychological adaptation and well-being. Meanwhile, lack of satisfaction will be resulted to low level of performance and reduced physical and psychological well-being (Ryan & Deci, 2000).

According to Moon et al. (2020), spirituality at work involves employees seeking their own deepest values and is considered as construct that persuading an individual's intrinsic motivation (Sharma & Hussain, 2012). In the same line, Milliman et al. (2018) stated that spirituality provides a new perception in what way individual experience a deeper level of intrinsic work motivation and engagement. Ali et al. (2021) argued that spirituality at work intrinsically motivates employees to generate a positive impact in organization such as become highly committed and more devoted to accomplishing their work goals. Therefore, based on Self Determination theory, inner life satisfied the need for autonomy, in finding an opportunity to express an individual's hopefulness at work, meaningful work satisfied the need for competence, partly from the ability to show one's skills and capabilities over the tasks that important to them and sense of community satisfied the need to relatedness, to be connected with others, to be valued for themselves as individuals, and to be part of a working together.

Hence, it is assumed that people who are high in spirituality at work can experience greater intrinsic need satisfaction on the job and thus become highly engaged in their work which in turn lead to greater performance. It is argued by Milliman et al.

(2003) that when employees find meaning and purpose at work and shared their personal values aligned with organization values, intrinsic work satisfaction increases. As a result, they will feel more competent, autonomous, and more connected with other people at work, such as their colleagues and supervisors, since they have tendency to engage actively with social context and subsequently increase job performance.

Within healthcare context, nurses who enjoy performing their job no longer needs to be encouraged or instructed to carry out their duties. It is believed that when spirituality at work acts as intrinsic motivation, nurses are expected to develop and progress in their profession. Nurses who have high effective internal motivations tend to work with vigor, dedication and absorption which then improves their job performance. These will create a sense of achievement, responsibility, satisfaction as well as participation among nurses which subsequently improves their job performance. According to Deci and Ryan (2000), person who intrinsically motivated tend to show gains in appearance, resilience, creativity, self-esteem, and superiority as compared with extrinsically motivated person. Apart from that, nurses who internally motivated feel that they are valuable to the organization and wish to remain in organization.

2.5.2 Social Exchange Theory (SET)

The Social Exchange Theory developed by Blau (1964) asserts that a reciprocal obligation exists between two parties (employee and employer) in a relationship (Bailey et al., 2017). This is because the social exchange consists of action depends on the reaction of the other benefits, the more time provide for the mutual and satisfying interaction and relationships (Cropanzano & Mitchell, 2005). Similarly, Saks (2006)

suggests that employees decide how often they should engage in their work and organization based on the resources they received from their organization. Resources energize employees, hence, they will react with higher level of engagement (Saks, 2019) which in turns improves their job performance. The easiest way for employees to repay their organization is through higher level of engagement (Saks, 2006). Carter et al. (2016) claimed that more theoretical basis for understanding and studying employee engagement and contribution of employee engagement to performance is derived in the norms of social exchange theory.

Therefore, this study used Social Exchange theory by (Blau, 1964) to clarify how perceived HRM practices are associated to certain attitudes and behavioral outcomes. Since the concept of social exchange theory is mutual exchange, nurses perceived that healthcare organization has provided support in HRM practices such as career development, employee participation, performance appraisal, and also training and development. So, nurses are expected to respond positively to the favorable treatments by engaging in good and desired attitudes and behaviors in the form of employee engagement. In return of this attitude, engaged nurses continue to enact themselves fully into their work role because of the continuity of favorable mutual exchanges.

Nurses with enriched jobs may feel obligated to return the resources or support they have earned from their employer whereas nurses who have felt that they have obtained unfair care from their organization become, on the other hand, less dedicated to their positions at work. Singh and Chopra (2016) argued that engaged employees are more likely to have a high-quality relationship with their employer which led them to

exhibit more positive attitudes, intentions and behaviors. Likewise, Markos and Sridevi (2010) stated that engaged employees are emotionally committed to their organization and are highly interested in their work to the extent they are willing to work extra miles beyond their job responsibilities. Therefore, this theory was used to support the theoretical framework of the study.

2.6 Theoretical Framework

Figure 2.1 shows the theoretical framework of the study. It shows that the spirituality at work (inner life, meaning at work, and sense of connection and community) and HRM practices (career development, employee participation, performance appraisal and training and development) are related to employee engagement and eventually affect the job performance. There are specifically 5 main direct relationships (H1 to H5) and 2 indirect relationships (H6 to H7) between spirituality at work, HRM practices, employee engagement, and job performance. The relationship is based on the Theory Self Determination (Deci & Ryan, 1985) and Social Exchange Theory (Blau, 1964), which implies the performance of an individual is influenced by its resources.

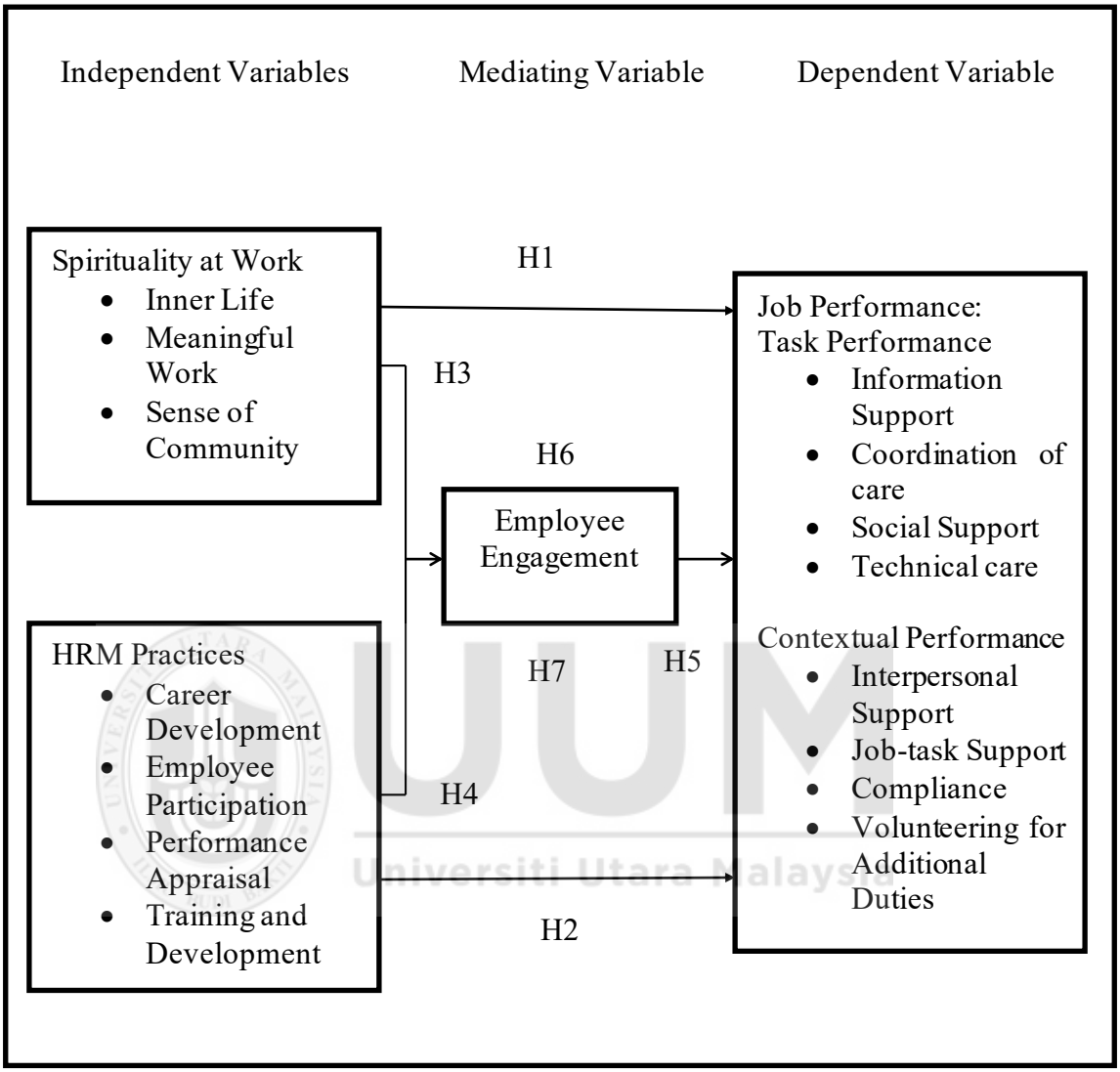


Figure 2.1
Theoretical framework

2.7 Summary of the Chapter

This chapter present the review of literature that focus on the relationship between spirituality at work, HRM practices, employee engagement, and job performance. Theoretical framework and hypotheses are proposed according to the literature. The following chapter will describe the procedures and methodologies use for data collection and analyses in this investigation.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the methodology to develop answers to the research questions. This chapter consists of the following sections: research design, selection of respondents, measurement of variables, questionnaire design, pilot study, data collection procedures, and analysis of data which includes internal consistency reliability, convergent validity, discriminant validity, descriptive analysis, assessment of structural model, assessment of mediation, and lastly, summary of the chapter.

3.2 Research Design

The present study employed quantitative study to examine the relationships between SAW, HRM practices and job performance (task and contextual performance) of nurses, as well as the mediating role of employee engagement on the relationship between the above-mentioned independent variables and the dependent variable. This is for the reason that quantitative study enables the researcher to test the relationship between the research variables (Kreuger & Neuman, 2006) and is able to answer questions about relationships among measured variables with the purpose of explaining, predicting, and controlling phenomena (Leedy & Ormrod, 2005).

Therefore, quantitative study approach is more suitable for this study since it permits hypothesis testing, which was designed to examine the influence of such

independent variables on the dependent variable, together with mediating effect that could potentially enhances such relationship. Basically, studies that involved in hypothesis testing usually clarify the nature of definite relationships, or establish differences between groups, and or the independence of two or more factors in a particular situation (Sekaran & Bougie, 2010). Therefore, the quantitative nature lies in the fact that the data collected are mainly numerical.

Apart from that, this study was conducted using cross-sectional design whereby the data was collected just once during a predetermined period and all research variables were measured simultaneously (Cavana, Delahaye, & Sekaran, 2001). Cross-sectional design is used because it permits the involvement of a huge number of respondents at a given period of time compared to longitudinal study whereby the design focuses on a smaller number of samples in a longer period of time (Cavana et al., 2001; Sekaran, 2003).

The unit of analysis is at individual level (nurse). It is because this study is interested in examining nurses' spirituality at work and perception of HRM practices and how these affect their job performance. This means that the data were collected and aggregated at individual level based on data obtained from the selected nurse. The primary data for this study was collected using survey method, using questionnaire. Zikmund, Babin, Carr, and Griffin (2009) claimed that a survey supplies a fast, inexpensive, and precise means of assessing data about a population. Meanwhile, according to Wong (2002), questionnaire is the method that most

commonly used in social science research to collect data for describing a population too large to be studied directly because the same set of questionnaires could be distributed to a large number of respondents.

Therefore, in this study, a questionnaire which consisted of demographic information and various scales measuring spirituality at work, HRM practices, employee engagement and job performance of nurse was used to obtain the data, as it allows the researcher to gather the primary data from a large, targeted sample, including nurses and their immediate supervisors (sisters). Past studies also suggested that survey instruments such as questionnaire is one of the most effective approaches for gathering primary data involving a large number of samples (Hair, Money, Samouel, & Page, 2007). Thus, questionnaire is considered as an appropriate tool because it permits the researcher to obtain quantitative data in a large sample.

3.3 Respondent

Basically, two process are needed to identify the respondent of the study, namely selection of the population as well as selecting the sample. The descriptions relating to population and sample in the study are as follows:

3.3.1 Population

The population of a study refers to an entire group of people or objects of interest that a researcher plans to investigate (Sekaran & Bougie, 2010). The study's population frame comprised of nurses and their immediate supervisor (sisters) working in 10 general hospitals administered under the authority of the Ministry of Health (MOH)

of Malaysia. The reason for choosing the general hospitals because general hospitals are large hospitals with bed capacity varying from 800-1200 bed and offer comprehensive range of secondary care services as compared to district hospitals which are smaller and only provide more basic medical care (Halizah, 2009).

Thus, to ensure a good exposure of all respondents working in various departments, it is appropriate to select the general hospitals as this study's sampling frame. Further, nurse was chosen as the sample of this study because nurses are the pillar of the primary healthcare services in Malaysia (Bernama, 2009, August 12) and nurse who works at general hospitals was chosen because 88,103 from 130,169 of nurses in Malaysia work at public hospitals (Bernama, 2020, May 12). Hence, this makes them a good subject for study. However, from 13 general hospitals throughout Malaysia, only 10 hospitals are willing to participate in this study. Table 3.1 showed the distribution of nurses working in 10 general hospitals in Malaysia. Thus, total population of nurse for this study was 12,514.

Table 3.1
Total Number of Nurses under Ministry of Health in December 2015

No.	Hospitals	Total Nurses
1	Hospital Melaka Melaka	1,217
2	Hospital Tengku Ampuan Rahimah Selangor	1,283
3	Hospital Tuanku Jaafar Negeri Sembilan	1,070
4	Hospital Raja Permaisuri Bainun Perak	1,577
5	Hospital Pulau Pinang Pulau Pinang	1,435

6	Hospital Tuanku Fauziah Perlis	577
7	Hospital Raja Perempuan Zainab II Kelantan	1,317
8	Hospital Tengku Ampuan Afzan Pahang	1,204
9	Hospital Sultanah Aminah Johor	1,404
10	Hospital Umum Sarawak Sarawak	1,430
	Total	12,514

Source: Ministry of Health (2015)

3.3.2 Sample

Cooper and Schindler (2014) defined sample as a group of cases, participants, events, or records consisting of a portion of the target population. Thus, the participants or sample of present study is nurse and their immediate supervisor (sisters) from all department such as anesthesiology, critical care/ ICU, emergency, medical, multidisciplinary unit, obstetrics and gynecology, oncology, operation theatre, ophthalmology, orthopedic, pediatric and surgical. Further added, nurses or Registered Nurses (RNs) in Malaysia are mostly nurses (SNs) with diploma holders, where they must attend three years pre-registration course before they are registered with Malaysia Nursing Board (MNB) and considered fit to practice in the clinical area.

The inclusion criteria for the sample of nurse included: holding a registered nursing license and practicing as a registered nurse in general hospitals, a graduate of a diploma, bachelor or master program, working under immediate or direct supervision, and have nursing at least six months. The researcher requested

cooperation from the Head of Nursing Department and hospital matrons to list and select only certain nurses that fulfilled the inclusion criteria for sample. Male nurses also were included in the sample although they form a small number of nursing population in Malaysia. Meanwhile, immediate supervisors or sisters were identified as another target group as they need to evaluate the nurses' job performance.

This is compatible with Organ, Podsakoff, and Mackenzie (2006) who stated that "when individuals are rating themselves, they may tend to report their intentions as well as their actual behaviors" (p.316). Thus, this could lead to bias. In addition, it is part of the supervisor's job to pay attention and evaluate their subordinates' performance (Bakker et al., 2012). However, nurses who had been on long leave during the study for instance, maternity leave and study leave were exempted. The sample also excluded nurse aids and attendants as they are not frequently involved in direct patient care. Further, newly graduated nurses who just joined the current hospital for less than six months also were excluded.

Due to large number of study population, it would be practically impossible to gather data from the whole population (Sekaran & Bougie, 2010) as it involves a huge number of elements. Therefore, sampling process need to be done in order to determine the sample size. Pallant (2007) noted that previous researchers had agreed on the sample size, which concluded that the larger sample is good because small sample tends to result in unreliable correlation coefficients and thus defeats the purpose of the study.

Roscoe (1975) suggested of some simple rule of thumb that: (1) Appropriate sample size for research is at least 30 but less than 500; (2) If samples are divided into sub-samples, then the minimum size for each sub-sample must not less than 30; (3) In multivariate analysis (including multiple regression analysis), the sample size should be several times larger, preferably 10 times, than the variables of the study; (4) For simple experiment with tight controls, a small sample size between 10-20 is quite sufficient. Moreover, Hair, Anderson, Tatham and Black (2006) generally prefer the sample size of 100 or larger to analyze the factor. In general rule, the minimum is to have at least five times as many observations as the number of variables to be analyzed and the more acceptable sample size should have a 10:1 ratio (Hair et al., 2006). Therefore, based on item to subject ratio, a total 900 is the appropriate questionnaire distributed since there are 90 items in this study.

However, the identification of sample size for this study is based on the table developed by Krejcie and Morgan (1970) as suggested by Sekaran and Bougie (2010). For the population of 12,514 nurses, the minimum sample size required for this study is 375. This means at least 375 nurses were required to represent the whole study population. The sampling guideline by Krejcie and Morgan (1970) is used because it has taken into account aspects of significant levels and the sampling error that was 5 per cent margin of error (95 per cent of confidence level) for an appropriate sample size.

Bartlett, Kotrlik and Higgins (2001) suggested to adjust the sample size for tendency of non-responses to overcome the likelihood of not getting the appropriate responds which was expected from the survey research. Blaikie (2003) recommended that in studies of large population that is tedious and expensive, a sample of around 1,000 may be satisfactory and 2,000 will be very satisfactory. Hence, based on Blaikie's (2003) recommendation, the sample size (375) was triple where 1,125 paired questionnaires that consists of Set A and Set B were distributed. Table 3.2 shown the distribution of questionnaire in 10 general hospitals.

Table 3.2
Distribution of Questionnaire for Each General Hospitals

No.	Hospitals	Total Nurses	Sample Size	Questionnaire Distributed (Paired)
1	Hospital Melaka Melaka	1,217	37	111
2	Hospital Tengku Ampuan Rahimah Selangor	1,283	38	114
3	Hospital Tuanku Jaafar Negeri Sembilan	1,070	32	96
4	Hospital Raja Permaisuri Bainun Perak	1,577	47	141
5	Hospital Pulau Pinang Pulau Pinang	1,435	43	129
6	Hospital Tuanku Fauziah Perlis	577	17	51
7	Hospital Raja Perempuan Zainab II Kelantan	1,317	40	120
8	Hospital Tengku Ampuan Afzan Pahang	1,204	36	108
9	Hospital Sultanah Aminah Johor	1,404	42	126
10	Hospital Umum Sarawak Sarawak	1,430	43	129
	Total	12,514	375	1,125

In this study, purposive sampling was used to obtain samples from 10 general hospitals located throughout Malaysia. Purposive sampling is one of the examples of non-probability sampling that is limited to specific types of people who can provide the desired information, simply because they are the only ones who have it, or because they meet some criteria set by researcher (Sekaran, 2003; Sekaran & Bougie, 2010). Further, Cooper and Schindler (2014) argued that purposive sampling is nonprobability sampling process in which researcher selects respondents for their unique characteristics or their experiences, attitudes, or perceptions. Even though this purposive sampling does not allow generalization, the primary consideration in purposive sampling is to provide specific target group of respondents who can provide the best information and willing to share in order to match with the objectives of the study (Kumar, 2011).

Another justification for using purposive sampling was the fact that the sampling frame is not accessible. The frame would name all the nurses. What is made available is just total number of nurses. Thus, non-probability sampling technique is deemed applicable even though generalizations on study findings cannot be made (Cooper & Schindler, 2014; Saunders, Lewis & Thornhill, 2009). Hence, in this study, nurses and their immediate supervisors (sisters) were the best position to provide the information required since they have gone through the experiences, attitudes and processes themselves which are able to provide good data or information to the researcher.

3.4 Measurement of Variables

This section discusses how each variable in the present study was measured. The measures were adopted and adapted from earlier studies with satisfactory reliabilities (Cronbach's alpha). The dependent variable, job performance (task performance and contextual performance) were measured with multidimensional scales. Spirituality at work, the first independent variable was measured with unidimensional scale, while HRM practices (career development, employee participation, performance appraisal and training and development) the second independent variable were measured with multidimensional scales. Employee engagement the mediator, was measured with unidimensional scale. With regard to the number of items for each variable, based on rule of thumb by Hair et al. (2006), a variable should be reflected by a minimum of 3 items. In accordance with this notion, all variables used in this study contains an adequate number of items. The summary of the measures for this study are show in Table 3.3.

Table 3.3
Summaries of Measurement

Variables	Items	Reliability	Source of Scale
Job Performance			Greenslade & Jimmieson (2007)
• Task Performance	23	0.94	
• Contextual Performance	18	0.91	
Spirituality at Work			Ashmos & Duchon (2000)
• Inner Life	5	0.80	
• Meaningful Work	7	0.86	
• Sense of Community	9	0.86	
Human Resource Management Practices			Delery & Doty (1996) and Singh (2004)
• Career Development	4	0.64	
• Employee Participation	4	0.80	
• Performance Appraisal	7	0.91	
• Training & Development	4	0.83	

Employee Engagement	9	0.90	Schaufeli & Bakker (2003)

3.4.1 Job Performance

Job performance is defined as the extent to which an individual behavior could help the organization in achieving its objectives (Borman and Motowidlo, 1993). Meanwhile, job performance of nurses is referring to the effectiveness of the nurses in performing his or her roles and responsibilities related to direct patient care. Previous researchers for instance, Schwirian six-D Scale (Schwirian, 1978) and the Slater Nursing Competencies Rating Scales (Phaneuf & Wandelt, 1974) have developed some instruments to measure job performance especially for nurses. However, there is drawback in both scales. Generally, nurses' job involved with wide range of behavior that are more discretionary in nature (Greenslade & Jimmieson, 2007). Thus, Nursing Performance Scale developed by Greenslade and Jimmieson (2007) was adapted to evaluate the job performance of nurse in this study.

A total of 41 items comprises the Nursing Performance Scale by Greenslade and Jimmieson (2007). Out of 41 items, 23 items measure task performance, and 18 items measure contextual performance. Here, the immediate supervisors or sisters were requested to rate their subordinate (nurses) performance on a 7-point Likert scale ranging from 1 = much below average to 7 = much above average. Examples of the questions for task performance are 'providing instructions for care at home,' 'listening to patients' concern' and 'informing all nurses in the unit about patient tests and their results'. Meanwhile, contextual performance was measured on a 7-pont

Likert scale ranging from 1 = not at all to 7 = a great deal. The sample questions for contextual performance are 'helping nurses in the unit to catch up on their work,' 'staying late to help patients' and 'attending and participating in meeting regarding the hospitals'. The reliability coefficient of the scale reported by Greenslade and Jimmieson (2007) were 0.94 and 0.91, for task and contextual performance respectively. The operational definitions and items of job performance is shown in Table 3.4.

Table 3.4
Operational Definition and Items of Job Performance

Dimensions	Operational Definitions	Items
Task Performance	Behaviours that are fundamental component of being a nurse based on job description.	
• Information Support	Giving information and education about the patient's condition and treatment.	This nurse… 1. Explaining to patients what to expect when they leave the hospital. 2. Providing instructions for care at home. 3. Explaining to families what to do if the patient's problems or symptoms continue, get worse, or return. 4. Explaining to patients when they can resume normal activities, such as going to work or driving a car. 5. Providing appropriate information to patient's families about nursing procedures they performed. 6. Communicating to patients the purpose of nursing procedures. 7. Informing patients of the possible side-effects of nursing procedures.
• Coordination of	Updating other nurses in	This nurse…

Care	the same department or unit about the patient's condition and treatment and ensuring that other nurses are aware of the patient's history.	1. Explaining to nurses in the unit the nature of the patient's conditions. 2. Reporting the critical elements of patients' situations when turning over work shifts. 3. Ensuring that all members of the nursing unit are familiar with the patient's recent medical history. 4. Informing nurses in the unit about changes in a patient's treatment. 5. Informing all nurses in the unit about patient tests and their results.
• Social Support	Emotional support to patients and their families. It consists of talking about any concerns or fears and providing comfort.	This nurse… 1. Showing care and concern to patient's families. 2. Listening to patient families' concerns. 3. Taking time to meet patient families' emotional needs. 4. Listening to patients' concerns. 5. Taking time to meet the emotional needs of patients. 6. Showing care and concern to patients.
• Technical Care	Formulating a plan of care in consultations with family and medical officer includes assisting patients with daily living activities and providing treatments and medication.	This nurse… 1. Taking patient observations (e.g. blood pressure, pulse, temperature). 2. Assisting patients with activities of daily living (e.g. showering, toileting and feeding). 3. Developing a plan of nursing care for patients. 4. Administering medications and treatments. 5. Evaluating the effectiveness of nursing care.
Contextual Performance	Behaviors that goes beyond the job requirements of nurses which contribute to the organizational, social, or psychological	

	environment of the hospital.	
• Interpersonal Support	Assisting other nurses with their jobs when required and assisting new nurses to learn the jobs includes providing comfort and emotional support to other staff within the hospital.	This nurse… 1. Raising morale of other nurses in the unit. 2. Helping nurses in the unit to resolve wok problems. 3. Consulting amongst each other when action might affect other nurses in the unit. 4. Willing to spend extra time to meet unit nurses' emotional needs. 5. Volunteering to share special knowledge or expertise with other nurses in the unit. 6. Helping nurses in the unit to catch up on their work.
• Job-task Support	Staying late to assist patients and their families and making special arrangements for family members.	This nurse… 1. Making special arrangements for patient's family. 2. Staying late to help patient's families. 3. Taking extra time to respond to a patient family's needs. 4. Making special arrangements for the patient. 5. Staying late to help patients. 6. Willing to spend extra time to respond to a patient's needs.
• Compliance	Nurse's conformity to the hospital's rules and regulations.	This nurse… 1. Complying with hospital rules, regulations and procedures, even when no one is watching. 2. Representing the hospital favourably to individuals outside the hospital. 3. Making sure that materials and equipment are not wasted.
• Volunteering for Additional Duties	Nurse volunteering for duties or jobs outside his/her recognized job expectations.	This nurse… 1. Volunteering to participate on communities within the hospital that are not compulsory. 2. Attending and participates in meeting regarding the hospital.

	3. Making innovative suggestions to improve the overall quality of the department.

Source: Greenslade and Jimmieson (2007)

3.4.2 Spirituality at Work (SAW)

Ashmos and Duchon (2000) defined spirituality at work as "the recognition that employees have an inner life that nourishes and is nourished by meaningful work that takes place in the context of community". The three dimensions of spirituality at work are inner life, meaningful work, and sense of community. For this study, the instrument of SAW was adopted from the work of Ashmos and Duchon (2000). This scale included a total of 21 items: (1) five items related to inner life; (2) seven items related to meaningful work; and nine items related to sense of community. These 21 items are treated as multidimensional construct. The reliability coefficient of the scale reported by Ashmos and Duchon (2000) were 0.804 (inner life), 0.858 (meaningful work) and 0.859 (sense of community). For the purpose of data collection, the respondents were requested to rate on how they feel about their work and their immediate work environment by indicating their responses on a 7-point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree. Ashmos and Duchon's instrument has been used extensively by the past scholars (Duchon & Plowman, 2005; Pawar, 2009; Rego & e Cunha, 2008) and the validity and reliability already proven (Daniel, 2015). Examples of the questions are 'I feel hopeful about life,' 'I experienced joy in my work' and 'my supervisor encourages my personal growth'. Table 3.5 shows the operational definitions and items of SAW.

Table 3.5
Operational Definition and Items for SAW

Dimensions	Operational Definitions	Items
• Inner Life	Finding an opportunity at work to express an individual's hopefulness, awareness of personal values, and concern for spirituality.	1. I feel hopeful about life. 2. My spiritual values influence the choices I make. 3. I consider myself a spiritual person. 4. Prayer is an important part of my life. 5. I care about the spiritual health of my co-workers.
• Meaningful Work	Involving in work that gives meaning to individual's lives by identifying what is important, energizing, and joyful about work.	1. I experience joy in my work. 2. I believe others experience joy as a result of my work. 3. My spirit energized by my work. 4. The work I do is connected to what I think is important in life. 5. I look forward to coming to work most days. 6. I see a connection between my work and the larger social good of my community. 7. I understand what gives my work personal meaning.
• Sense of community	Living in connection with other human beings by experiencing personal growth, valued for themselves as individuals, and having a sense of working together.	1. I feel part of a community in my immediate workplace (department, unit). 2. My supervisor encourages my personal growth. 3. I have had numerous experiences in my job which have resulted in personal growth. 4. When I have fears, I am encouraged to discuss them. 5. When I have a concern, I represent it to the appropriate person. 6. At work, we work together to resolve conflict in a positive way. 7. I am evaluated fairly here. 8. I am encouraged to take risks at work. 9. I am valued at work for who I am.

Source: Ashmos and Duchon (2000)

3.4.3 Human Resource Management practices (HRM practices)

Wright et al. (1994) defined HRM practices as "the organizational activities directed at managing the pool of human resources and ensuring that the resource is employed towards the fulfillment of organizational goals". HRM practices in this study encompasses of career development, employee participation, performance appraisal, and training and development. Hence, items derived by Delery and Doty (1996) and Singh (2004) were adapted to form 19 questions as shown in Table 3.6 to complement with the nature of HRM practices in public hospital sector. The measurements used in this study comprised of 19 items that constitutes four dimensions of HRM practices: (1) four items related to career development; (2) four items related to employee participation; (3) seven items related to performance appraisal; and (4) four items related to training and development.

This measurement scale had one negatively worded statement which was on Questions 2 for career development. Thus, for negatively worded statement, reverse coding was done so a summated scale could be calculated to interpret the results (Hair et al., 2006). These 19 items were determined the respondents' perceptions of career development, employee participation, performance appraisal, and training and development practice performed by their hospitals. The reliability coefficient for each instrument was 0.64 for career development practice, 0.80 for employee participation practice, 0.91 for performance appraisal practice, and 0.83 for training and development practice. Respondents were asked to rate their perception of career

development, employee participation, performance appraisal and training and development practices performed by their organization by indicating their responses on a 7-point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree. The operational definitions and items of each dimension are presented in Table 3.6.

Table 3.6
Operational Definition and Items for HRM Practices

Dimensions	Operational Definitions	Items
• Career Development	Employees' perception of the organization's career opportunities offered to employee by their organization.	1. I have clear career paths within this hospital. 2. I have very little future within this hospital (reverse coded). 3. My career aspirations within this hospital are known by my immediate supervisor. 4. I have more than one potential position that could be promoted to.
• Employee Participation	Employees' perception on the degree to which employees were allowed to have input about their work and the degree to which organization valued their input.	1. I am allowed to make many decisions. 2. My supervisor often asks me to participate in decisions. 3. I have opportunities to suggest improvements in the way things are done. 4. My superiors keep open communications with me in this job.
• Performance Appraisal	Employees' perception towards the evaluation methods practices by their organization and the usage of their performance data in training and performance	1. My performance is measured based on written and objective quantifiable result. 2. Appraisal system in this hospital is up to date. 3. Feedback and counselling of my performance results is provided.

	feedback.	4. I trust my hospital performance appraisal system. 5. My appraisal has a strong influence on individual and team behaviour. 6. My appraisal results is used for making decisions like job rotation, training and compensation. 7. I am clear about the objective of the appraisal system in my hospital.
• Training and Development	Employees' perception on availability of training, both formal and informal provided by organization for employees in a job.	1. I am given extensive training to develop my skills, attitudes and provide more knowledge. 2. I will normally go through training programs every few years. 3. Formal training programs are provided for all new nurses to sharpen the skills to perform the jobs. 4. Formal training programs are offered to me in order to increase the chances for me for promotion in the hospital.

Source: Delery and Doty (1996) and Singh (2004)

3.4.4 Employee Engagement (EE)

Employee engagement (EE) is defined as a positive, fulfilling, work related state of mind that is characterized by vigor, dedication, and absorption (Schaufeli et al., 2002) and was treated as a unidimensional construct. To get data regarding EE, this study used the shortened 9-item version of the Utrecht Work Engagement Scale (UWES-9) originally derived by Schaufeli et al. (2006). The UWES-9 scores have better psychometric properties than UWES-17 (Kulikowski, 2017) and this instrument can

be used in studies on positive organizational behavior (Schaufeli et al., 2006). Carter et al. (2016), Jose and Mampilly (2014) and Schaufeli and Bakker (2010), agreed that the UWES is a extensively used instrument to measure engagement and often used in international settings with good measures of internal consistency (Rurkkhum & Bartlett, 2012). The UWES-9 consists of three subscales, namely, vigor, dedication, and absorption. These three subscales are approximately related with high correlation and the highly correlated error terms among sub-dimensions items (Kulikowski, 2017); hence it may be more practical to disintegration the subscales into a uni-dimensional composite score (Schaufeli & Bakker, 2003; Schaufeli & Bakker, 2010; Sonnentag, 2003). Berry and Feldman (1985) suggested that composites scales are perfect used when correlations are high in order to reduce multi-collinearity. Sample of the questions were, 'At my work, I feel bursting with energy' and 'At my job, I feel strong and vigorous'. Respondents were asked to point out on a 7-point Likert scale ranging from 1 = never to 7 = always. Cronbach's alpha for this scale is 0.90. The operational definitions and items of employee engagement were showed in Table 3.7.

Table 3.7
Operational Definition and Items for EE

Dimensions	Operational Definitions	Items
• Vigor	Willingness and determination to exert energy and effort in one's work and to be resilient and persistent when confronted with	1. At my work, I feel bursting with energy. 2. At my job, I feel strong and vigorous. 3. When I get up in the morning, I feel like going to

	obstacles.	work.
• Dedication	Characterized by being strongly involved in one's work and experiencing a sense of significance, enthusiasm, inspiration, pride and challenge.	1. I am enthusiastic about my job. 2. My job inspires me. 3. I am proud of the work that I do.
• Absorption	Being totally immersed and content with one's work such that time passes quickly and to find it difficult to detach oneself from work.	1. I feel happy when I am working intensely. 2. I am immersed in my work. 3. I get carried away when I am working.

Source: Schaufeli and Bakker (2003)

3.4.5 Demographic Information

Respondents of the study were also asked to provide personal information such as their gender, marital status, age, ethnicity, length of service in current hospital, length of service in nursing profession, educational qualification, and department/unit. All the demographic items were measured on a categorical scale.

3.5 Pilot Study

Cooper and Schindler (2014) claimed that pilot study is carried out to identify weaknesses in design and instrumentation and also to provide proxy data for selection of a probability sample. While, Sekaran and Bougie (2010) pointed out that pilot study is commonly conducted in small basis, by interviewing individuals or collecting information from limited number of occurrences. Further, the respondents in the pilot test should be identical to those who will be included in the actual study in terms of

background characteristics, familiarity with the topic, and attitudes and behaviors of interest (Shukla, 2008).

Therefore, as recommended by Cooper and Schindler (2014) a total of 95 matched questionnaires were personally hand delivered to the Head of Matron at Hospital Pakar Sultanah Fatimah, Muar, Johor. This hospital is not part of the study sample. Further, in order to check for clarity of the questions, the internal consistency of each measure was examined using Cronbach's alpha. Table 3.10 presents the measures of the reliability scores. Sekaran (2003) suggested that a minimum acceptable reliability is at 0.60. As shown in Table 3.10, all variables have satisfactory reliability values that ranging from 0.71 to 0.90 based on 90 matched returned questionnaires.

Table 3.8
Reliability Coefficient for each Instrument (N=90)

Instrument	Number of Items	Cronbach's Alpha based on Standardized Items
Spirituality at Work (SAW)		
• Inner Life	5	0.74
• Meaningful Work	7	0.82
• Sense of Community	9	0.80
HRM Practices		
• Career Development	4	0.73
• Employee Participation	4	0.81
• Performance Appraisal	7	0.75
• Training and Development	4	0.71
Employee Engagement (EE)	9	0.90
Task Performance	23	0.92
• Information Support	7	0.90
• Coordination of Care	5	0.79
• Social Support	6	0.90

• Technical Care	5	0.79
Contextual Performance	18	0.83
• Interpersonal Support	6	0.85
• Job-task Support	6	0.88
• Compliance	3	0.80
• Volunteering for Additional Duties	3	0.89

3.6 Questionnaire Design

According to Sekaran and Bougie (2010), questionnaire is an efficient data collection method and thus, this study used a booklet type questionnaire to collect the data. There are two different set of questionnaires as the data was gathered from two different sources, nurses and their immediate supervisors (sisters). Set A of the questionnaire is in white color meant for nurse meanwhile Set B of the questionnaire which is in blue color was for immediate supervisor (sister). By using two separate sources of information for the independent variables and dependent variable will give certain methodological benefits by lowering the risks of common method bias (Podsakoff, Mackenzie, Lee, & Podsakoff, 2003). Nurses answered the independent variables (SAW and HRM practices) and mediating variables (EE), whereas their immediate supervisors or sisters were evaluated nurses' job performance (dependent variable).

Further, the cover letter on the first page for each set of questionnaire booklet was used to encourage the respondents to fill in and return back the questionnaire (Zikmund et al., 2009). It is specifically to inform the respondents about the purpose of the study, participation in study is voluntary, the approximate time to complete the survey, their responses would be confidential, how the data will be used, contact

number of researcher, and expression of appreciation for participating in the survey. The respondents also were requested to return their responses to respective representative.

The questionnaire in Set A (refer Appendix 1) was split into four main sections; namely section 1, 2, 3 and 4. Section 1 contains of 8 items related to personal and demographic information such as gender, marital status, age, ethnicity, length of service in current hospital, length of service in nursing profession, educational qualification, and department/unit while Section 2 contains of 21 items measuring spirituality at work. Section 3 contains 19 items of HRM practices and Section 4 contains 9 items measuring employee engagement as featured in Table 3.8. Meanwhile, the questionnaire in Set B (refer Appendix 2) was divided only into two section; namely section 1 and 2. Section 1 began with 8 items related to personal and demographic information of the respondent such as gender, marital status, age, ethnicity, length of service in current hospital, length of service in nursing profession, educational qualification, and department/unit whereas section 2 was on 41 items which measures job performance (task performance and contextual performance) of staff nurse as featured in Table 3.9.

All measures in the questionnaire were originally written in English, but this study used dual languages; (1) English; and (2) Bahasa Malaysia to cater for the needs of respondents from diverse races and education background. Hence, the original English version of the questionnaire was back-translated as recommended by Brislin (1970). According to Brislin (1970), back translation is a process that is

commonly used to examine the precision of translation in a multi-country study. In this study, English teacher was identified to help in translated the questionnaire from English version to Malay version and from Malay version to English version (refer Appendix 3). In addition, one nurse was asked volunteerily to examine the content validity of the translated questionnaire and she claimed that the questionnaire is easy to understand as reflected well nurses' job (refer Appendix 4).

As such, respondents were asked to respond to the items by indicating their answer using 7-point Likert scale. According to Cooper and Schindler (2014), the advantage of using 7-point scale is better approximation of a normal response curve and extraction of more variability among respondents. Moreover, Hinkin (1995) stated that 7-point scale will allow option for respondents and better capture variability in their attitudes and feelings.

Table 3.9
Sections in Questionnaire Set A

Section	Content	Total Questions
1	Demographic Information	8
2	Spirituality at Work (SAW)	
	• Inner Life	5
	• Meaningful Work	7
	• Sense of Community	9
3	Human Resource Management Practices (HRM Practices)	4
	• Career Development	4
	• Employee Participation	7
	• Performance Appraisal	4
	• Training and Development	
4	Employee Engagement (EE)	9

Table 3.10
Sections in Questionnaire Set B

Section	Content	Total Questions
1	Demographic Information	8
2	Job Performance	
	• Task Performance	23
	• Contextual Performance	18

3.7 Data Collection Procedures

Before distributing the questionnaires, several procedures have to be fulfilled. Firstly, this study has been registered with the National Medical Research Registry (NMRR) as part of the requirements. Then, submit the research proposal online (https://www.nmrr.gov.my) to the National Institute of Health (NIH) and Medical Research and Ethics Committee (MREC). The completed agreement form (Investigator's Agreement, Head of Department and Institutional Approval) (refer Appendix 5) was submitted online together with the research proposal and questionnaires. The NMRR registered number for this research was 14-1854-19618 and investigator ID was 19618.

Secondly, after obtaining approval from NIH (refer Appendix 6) and MREC (refer Appendix 7), an introduction letter to conduct the study and requesting permission was submitted to the director of each 10 general hospitals. There were several documents that enclosed together with this letter, such as a copy of research proposal, questionnaires, and approval letter from MREC. To obtain the approval from each participating hospital, the researcher also gathered some support and

cooperation from Clinical Research Center of each participating hospitals. Finally, researcher has made appointment with Head of Nursing Department or hospital matrons to discuss the process in administration of questionnaire survey after obtaining the approval from the director of 10 general hospitals who were willing to take part and give cooperation in this study.

Upon the director's approval, the questionnaires were given personally to the Head of Nursing Department or hospital matron. All the necessary information and documents were inserted into the envelope. The package of information consists of a bilingual version of the questionnaires with a letter of introduction on the first page that explained the study's purposes. However, given the fact that the researcher does not has no direct contact to the two target groups, assistance from the Matron's office was required. A discussion regarding the procedure for questionnaires distribution and collection was made between the researcher and the Head of Matron in each participating hospital. One person in charged has been assigned by Head of Matron for distributing and collecting completed set of questionnaires. The person in charged and Head of Matron were informed to select the immediate supervisor (sisters) from all departments or units in their hospitals.

The immediate supervisors or sisters were provided with a set of questionnaires (Set B) which required them to evaluate the performance of nurses under their supervision. Then, each immediate supervisor has been notified to distribute the subordinates' questionnaire (Set A) to the nurses under their supervision and evaluation. The questionnaires were distributed to not more than four

nurse for each supervisor as suggested by matron in order to avoid disturbing the supervisors' daily job. Once the nurse has completed the questionnaire, they have to return their questionnaire to their respective immediate supervisor/sisters and the immediate supervisors/sisters were then matched their questionnaire (Set B) with the questionnaire received from the nurses (Set A). Completed matched pair of questionnaires were sent by the sisters to the person in charged at Matron Office four weeks after the date of distribution by the immediate supervisors.

Upon sending out the questionnaire packages to the respondents, telephone calls were also made to the person in charged to remind her about the survey. The data collection took five months to complete, starting from December 2015 to April 2016.

3.8 Analysis of Data

This study employs three statistical tools to run the analysis of this study. Statistical Package for Social Sciences (SPSS) software version 25 has been used to analyze data at the preliminary stage such as demographic analysis and descriptive statistics which include frequency, percentage, mean and standard deviation. Quinlan (2011) recommended that SPSS software works very well in the analysis of survey data and very popular one used by business researchers (Zikmund et al., 2009). Meanwhile, Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS 3 (Ringle, Wende, & Becker, 2015) was used to examine measurement model consists of examine the internal consistency reliability, convergent and discriminant validity, assessment of structural model to test hypotheses of the study and assessment of mediation using bootstrapping the indirect effect. Besides, a free access statistical

power analysis online calculator named WebPower (Zhang & Yuan, 2018) was also used to examine the normality of data distribution.

In addition, Hair et al. (2014), suggested to use PLS-SEM when the objective of analysis is to predict or identify key driver constructs, when the structural model is complex with many constructs and indicators and the data are not required to be normally distributed. Since this study has two endogenous variables (employee engagement and job performance), PLS-SEM is the best approach to analyze the relationship simultaneously and PLS-SEM also one of the most widely used methods of multivariate data analysis among business and social science researchers (Memon et al., 2021). Further, PLS-SEM concentrates more on prediction and estimation, which useful in maximizing the explained variance of exogenous variables (independent variables) on endogenous variable (dependent variable) (Hair et al., 2014). For the complexity, Hair et al. (2014) argued that seven constructs also could considered as complex model and for this study, there were five exogenous and two endogenous to be tested. Therefore, it is clear that the PLS-SEM is the most appropriate software tools to be employed on this study. A PLS-SEM model can be decomposed into two sub-models, namely measurement model and structural model (Ramayah et al., 2018). Certain statistical tests were conducted, which were explained in the following section.

3.9 Reflective and Formative Models

There are two categories of measurement specifications. These are reflective and formative models. Researchers are advised to recognize which of the two indicators they fall into (Ibrahim, 2016). Reflective indicators can be described as a representative sample of all likely items existing within the conceptual domain of the construct (Hair et al., 2014, p. 43). The items signify, affect or cause the latent variables and can be recognized as a depiction of the constructs (Hair et al., 2010). On the other hand, formative indicators affect the construct (Hair et al., 2014). Unlike the reflective model, a formative model presumes that all measures have an effect on a particular construct (Jarvis, Mackenzie & Podsakoff, 2003). The items are not substitutable, and every of the indicators depict diverse feature of the constructs domain and, thus, overlooking an indicator can possibly change the nature of the construct (Ibrahim, 2016). For the present study, all constructs are modelled as a reflective following the original measures.

3.10 Measurement Model Evaluation

SPSS 25 version was engaged in screening collected data in order to confirm its ropriateness for PLS analysis. Consequently, Smart PLS 3 software was employed to establish the measurement model, reliabilities for individual item as well as composite reliabilities, convergent validity, and also, discriminant validity (Hair et al., 2014).

According to Pallant (2016), internal consistency reliability is the degree to which the items that make up the scale are all measuring the same underlying

attribute. Previously, internal consistency for a measurement model or reliability of the item measuring the constructs is examine using Cronbach's Alpha. For Cronbach's Alpha, Sekaran (2003) suggested that the minimum acceptable reliability at 0.60 meanwhile, Nunnally (1978) recommended that an acceptable level of the reliability at 0.70. However, there is weaknesses when using it in PLS-SEM since in SEM, it is unsuitable to assume every indicator will yield the same loadings (Ramayah et al., 2018). Therefore, another reliability measure was introduced, namely composite reliability (Henseler, Hubona, & Ray, 2016) which is more consistent measure of internal consistency reliability in utilizing PLS since it does not assume that all indicators are equally weigh as considered in SPSS (Ramayah et al., 2018). Hence, in this study, internal consistency reliability was measured using composite reliability coefficient (ρ_C). Gefen, Straub and Boudreau (2000) and Hair et al., (2014) recommended that composite reliability value should be 0.70 or higher to indicate adequate convergence or internal consistency.

According to Zikmund and Babin (2010), validity is the accuracy of a measure or the extent to which a score truthfully represents a concept. Meanwhile, convergent validity refers to the overlap (or correlation) between questionnaire items that have been used to measure the same construct (Saunders et al., 2016) which is determined through average variance extracted (AVE) values. AVE also known as a grand mean value of the squared loadings of all indicators associated with constructs (Ramayah et al., 2018). In this study, convergent validity was determined using AVE. Fornell and Larcker (1981), Gefen et al. (2000) and Hair et al. (2014) suggested a

minimum requirement of convergent validity for a construct is to have at least AVE of 0.5. In addition, researchers are allowed to retain items with factor loading as low as 0.50 (Byrne, 2016) or 0.40 (Hulland, 1999), as long as that particular construct has achieved its convergent validity requirement (AVE = 0.50).

After considering the indicator and construct composite reliability and convergent validity, a through validation using discriminant validity was used to show that these indicators were distinguishable from other constructs. Discriminant validity refers to dissimilarity of constructs under investigation from one another (Ramayah et al., 2018). According to Ramayah et al. (2018), there are three approaches to access discriminant validity in SmartPLS 3. First method is through examining the cross-loading criterion by comparing an indicator's outer loading on the associated construct and should be higher than loadings on all other latent variables. Second method which is Fornell and Larcker's (1981) criterion required the AVE of latent variable should be higher than the squared correlations between the latent variable and all other variables (Fornell & Larcker, 1981).

However, there has been criticism on the usage of Fornell and Larcker's (1981) criterion to examine discriminant validity. Hetereotrait-Monotrait (HTMT) ratio criterion as suggested by Henseler et al. (2015) can be used as an alternative assessment to access discriminant validity. According to Henseler et al. (2015), HTMT is the ratio between mean of all items' correlations across constructs measuring different constructs and the mean of the average items' correlations measuring the same construct. Besides, Ramayah et al. (2018) argued that HTMT is

good discriminant criterion to make sure that each construct of study is really different from one another. Therefore, this study access discriminant validity assessment using HTMT ratio.

3.11 Descriptive Analysis

The purpose of doing this analysis is to acquire a good feel of the gathered data. Zikmund et al. (2009) defined descriptive analysis as statistics that summarize and describe the data in a simple and understandable manner. For example, statistics such as frequencies, mean, and the standard deviation that provide descriptive information about a set of data (Sekaran & Bougie, 2010). In this study, descriptive analysis is employed to analyze the characteristics of respondents including their gender, current age, marital status, ethnicity, length of service in current organization, length of service in nursing profession, educational background, and department of work. Apart from that, mean and standard deviations of the dimensions and variables being studied also were analyzed. These included the means and standard deviations for seven dimensions of independent variables; three dimensions of SAW (inner life, meaningful work, sense of community), and four dimensions of the HRM practices (career development, employee participation, performance appraisal, training and development), employee engagement as mediating variable, and finally, job performance which includes task and contextual as the dependent variables.

According to Zikmund et al. (2009), mean is "the arithmetic average and it is common measure of central tendency". It can be used when data is measured with either an interval or a ratio scale (also called metric) (Hair et al., 2010). Meanwhile,

standard deviation is square root of the variance for a distribution (Zikmund et al., 2009). It describes the spread or variability of the sample distribution values from the mean and is perhaps the most valuable index of dispersion (Hair et al., 2010). For example, if the estimated standard deviation is large (for a 7-point Likert scale, value of >3.0 is considered as large), then, responses in a sample distribution of numbers do not fall very close to the mean of distribution (Hair et al., 2010). Hence, it means that there is a lot of variability in the respondents' opinions. Meanwhile, if the estimated standard deviation is small (value of <1.0), then the distribution values are close to the mean (Hair et al., 2010). Thus, it suggests that the respondents were very consistent in their opinions about the variable.

3.12 Structural Model Evaluation

After the measurement model has been validated successfully, structural model through path coefficient would be used to check which relationship of exogenous variables will directly or indirectly influence or cause changes in the values of the endogenous variables in the model. Hence, in conducting structural model analysis, six assessment guidelines have been followed as suggested by Hair, Risher, Sarstedt, and Ringle (2019). First, the collinearity issues. As collinearity increases, it complicates the interpretation of the variate because it is more difficult to ascertain the effect of any single variable, owing to their interrelationships (Hair et al., 2010). By any means, the existence of collinearity issue could adversely affect the statistical significance of the regression coefficients. Therefore, Hair, Hult, Ringle, and Sarstedt (2017) recommended the evaluation of variance inflation factor (VIF) values to be

used to access the collinearity issue. A VIF value of 3.3 or higher (Diamantopoulos & Siguaw, 2006) or a VIF value of 5 or greater (Hair et al., 2017) may indicate a potential collinearity problem.

Second is model's explanatory power. Model's explanatory power should be evaluate using coefficient of determination score, R^2 (Hair et al., 2019; Ramayah et al., 2018; Shmueli & Koppius, 2011). R^2 is known as the combined effect of predictor variables on dependent variable (Ramayah et al., 2018), and is therefore a measure of the model's in-sample predictive power (Rigdon, 2012). Several researchers, such as Chin (1998) suggested an acceptable value of R^2, where 0.67, 0.33 and 0.19 are classified as substantial, moderate, or weak levels of predictive accuracy. Meanwhile, according to Cohen (1988), R^2 values of 0.26, 0.13 and 0.02 are classified as substantial, moderate, or weak levels of predictive accuracy. This study followed predictive accuracy suggested by Cohen (1988).

The third assessment is assessment of predictor's effect size. Hair et al. (2014) recommended that substantive effect or known as effect sizes of each predictor variable on dependent variable should be reported. Hence, the effect size of predictor constructs was measured using Cohen's f^2. The f^2 assess the relative impact of exogenous construct on an endogenous construct (Cohen, 1988). Cohen (1988) suggested f^2 values of 0.35, 0.15, and 0.02 are representing large, medium, and small effect sizes. In SmartPLS version 3, the result of effect sizes (f^2) is automatically offered by the software, in contrast with the previous version where researcher need to manually calculate it.

The fourth ones are model's predictive accuracy. Structural model predictive accuracy or also known as model's predictive relevance is measured using a metric called Q^2 (Geisser, 1975; Stone, 1974). In SmartPLS, Q^2 value is calculated using the blindfolding procedure; a resampling technique that systematically deletes and predicts every data point of the indicators in the reflective measurement model of endogenous construct (Ramayah et al., 2018). A Q^2 value is computed to assess whether a model accurately predicts data not used (out-of-sample prediction) in combination with in-sample explanatory power in the estimation of model parameters (Sarstedt, Ringle, & Hair, 2017; Shmueli, Ray, Estrada, & Chatla, 2016). Hair et al. (2017) recommended to used cross-validated redundancy to calculate Q^2 since it incorporates the key element of the path model and the structural model to predict eliminated data points (Ramayah et al., 2018). In addition, as suggested by Hair et al. (2014) and Fornell and Cha (1994), a Q^2 value should be larger than zero ($Q^2 > 0$) to indicate acceptable predictive accuracy for a certain endogenous construct.

The fifth assessment is assessment of model's predictive power. Hair et al. (2019) suggested on the reporting of Q^2_predict to make sure that a PLS-SEM structural model has a substantiated model's predictive power. Structural model predictive power is calculated based on Q^2_predict and root square mean error (RMSE) generated from PLSpredict procedure (Shmueli et al., 2019; Shmueli et al., 2016). According to Hair et al. (2019) and Shmueli et al. (2016), PLSpredict refers to a set of procedures for out-of-sample prediction that involves estimating the model on an analysis (training) sample and evaluating its predictive performance on a holdout

data sample. The interpretation of out-of-sample predictive power should focus on the model's key endogenous construct (Hair et al., 2019; Shmueli et al., 2019). In this study, the key endogenous model construct was job performance. As suggested by Shmueli et al. (2019), the Q^2_predict statistic should be evaluated first to verify that the predictions outperform the most naïve benchmark, defined as the indicator means from the analysis sample. Then, researcher need to evaluate the prediction statistics using RMSE (Hair et al., 2019). The structural model has high predictive power when none of the indicators of key endogenous construct in the PLS-SEM analysis showed higher RMSE values compared to the naïve LM benchmark (Shmueli et al., 2019).

Lastly, the sixth assessment is the significance of structural model relationships. According to Ramayah et al. (2018), PLS does not make any assumption about the distribution of data, therefore, when data is not normal, the *t*-values will be inflated or deflated which then leads to Type 1 error. According to Wong (2013), researcher should consider on bootstrapping procedure since bootstrap result approximates *t*-values for significance testing of the structural path. In order to interpret the bootstrapping results, SmartPLS 3 provides five types of confidence interval, namely, percentile method, studentized bootstrap, bias-corrected and accelerated bootstrap (BCA) and double bootstrap method (Ramayah et al., 2018). This study used bias corrected confidence interval to interpret bootstrapping results. In addition, the researcher also should examine the path coefficient value, which represent the strength of the relationships between latent variables. Path coefficients

are significant at least at the 0.05 significance level and follow the positive or negative sign of relationship (Hair et al., 2017).

3.13 Assessment of Mediation

Preacher and Hayes (2008) described mediation or indirect effect as a process by which several variables influence on others through at least one intervening variable or mediator. In other words, mediation analysis used to answer how or by what means an independent variable affects a dependent variable via mediator (Preacher & Hayes, 2008). According to Ramayah et al. (2018), there are several approaches to examine the indirect relationships, namely, Baron and Kenny's (1986) method, Sobel test and bootstrapping the indirect effect. Baron and Kenny's (1986) causal procedure method has been highly employed for testing mediation effect in social science research because it is simple to understand, easy to describe and teach to everyone (Ramayah et al., 2018). However, there are several weaknesses had been found when using Baron and Kenny's (1986) method. For example, Baron and Kenny's causal procedure method is having low statistical power and the multiple steps increase the occurrence of Type 1 error (Rungtusanatham, Miller, & Boyer, 2014) as well as does not provide the standard error to construct confidence limits or the size of indirect effect of the independent on the dependent variable (Mackinnon, Lockwood, Hoffman, West, & Sheets, 2002). A method with low statistical power will often fail to identify actual effects that exist in the population (Mackinnon et al., 2002). Meanwhile, Sobel test is not suitable to be used in study because this test has low

statistical power and the product of indirect effect is not normally distributed (Ramayah et al., 2018).

Further, several researchers such as Zhao et al. (2010) and Preacher and Hayes (2008) recommended that the direct effect (path *c'*) does not have to be significant while analyzing for mediation. In fact, the strength of mediation should be calculated by the size of the indirect effect (path *a* x path *b*) (Hayes & Rockwood, 2016; Zhao et al., 2010). This mediation method is called bootstrapping the indirect effect (Preacher & Hayes, 2008; 2004). Bootstrapping is a non-parametric resampling procedure which has been known as one of the more rigorous and powerful method for testing the mediating effect (Zhao et al., 2010; Hayes, 2009) and it is said to be suitable for PLS-SEM because there is no assumption on the shape of the sampling distribution (Hair et al., 2017; Preacher & Hayes, 2008). Hayes and Scharkow (2013) also suggested to use bias-corrected confidence interval for detecting mediating effect when a mediation is occurred. The mediation is significant when bias-corrected confidence interval does not straddle in 0 (Preacher & Hayes, 2008; 2004).

Figure 3.2 represents the simple form of mediation based on Preacher and Hayes (2004). Path *c'* is direct effect of X on Y when M is held constant, and Path *a* x *b* is called indirect effect of X on Y. Meanwhile, the total effect, *c* is the direct effect + indirect effect ($c = c' + [a \times b]$). The indirect effect, *a* x *b* is the measure of the amount of mediation when calculating the effect in mediation model (Ramayah et al., 2018).

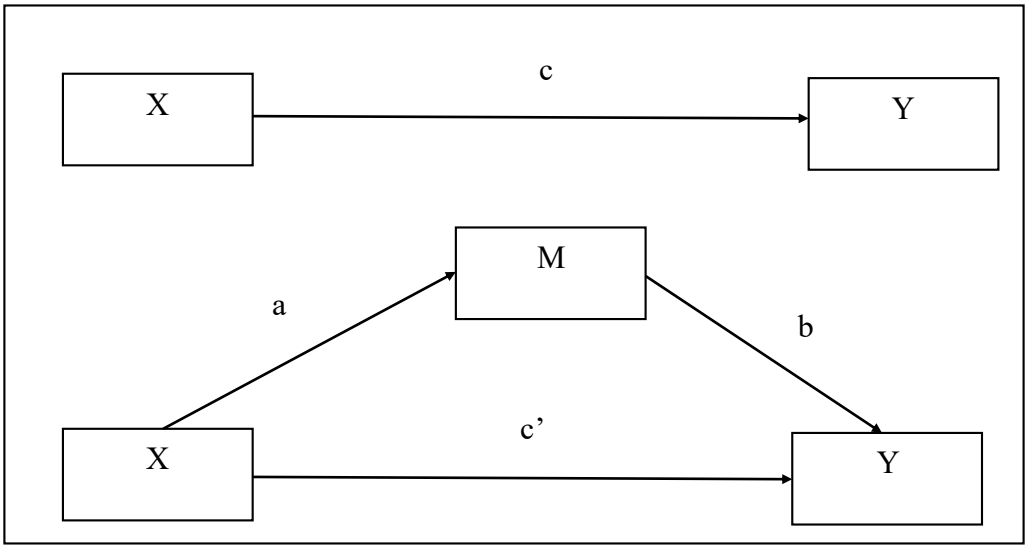


Figure 3.1
Simple Mediation Model obtained from Preacher and Hayes (2004)

Therefore, to determine the mediating effect of employee engagement between spirituality at work and HRM practices on the job performance (task and contextual performance), bootstrapping the indirect effect developed by Hayes (2013) was employed, which used to answer the research questions number six and seven. In this study, a total of 5,000 bootstrap samples with 95 per cent confidence interval was employed to measure the mediating effect of employee engagement. In addition, researchers are advised to conclude mediation results by identifying types of mediation (Hair et al., 2017; Nitzl, Roldan, & Cepeda, 2016). According to Mackinnon, Fairchild, and Fritz (2007) there are three types of mediation, namely, full mediation, competitive partial mediation, and complementary partial mediation (see Figure 4.6).

3.14 Summary of the Chapter

This chapter discusses about the methodology that being used in this study, which comprised of research design, respondents, measurement of variables, questionnaire design, pilot study, data collection procedure, analysis of data, and summary of the chapter. Quantitative approach has been used and this study employed survey method to collect the data. Unit analysis of this study was individual which is represented by the nurse and their immediate supervisor (sister) who works in 10 general hospitals throughout Malaysia. Statistical Package for Social Sciences (SPSS) software version 25 has been used to analyze data at the preliminary stage such as demographic analysis and descriptive statistics which include frequency, percentage, mean and standard deviation. Meanwhile, Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS 3 (Ringle et al., 2015) used to examine internal consistency reliability, convergent and discriminant validity, assessment of structural model and assessment of mediation using bootstrapping the indirect effect. The results of the analyses are presented in the next chapter.

CHAPTER 4

FINDINGS

4.1 Introduction

This chapter presented the results of conducted data analyses to answer the research questions and fulfil the research objectives. This chapter comprised of four major parts including survey response rate, data cleaning procedures to ensure the dataset is reliable and error free, measurement model assessment to test the validity and reliability of constructs under study, and structural model assessment to test the hypothesised relationships between the constructs. Besides that, other complementary data analyses such as common method bias, demographic information, and descriptive statistics were also included. The summaries of hypothesis testing also included and finally, the last parts present summary of the chapter.

4.2 Survey Response

As mentioned in previous chapter, a total of 1,125 matched pair of questionnaires were distributed between December 2015 to April 2016 to the nurses and their immediate supervisors at 10 general hospitals throughout Malaysia (see Table 4.1). The data for independent variables and mediating variable were obtained through a questionnaire (Set A), which distributed to selected nurses. On the other hand, data for dependent variable were derived from respective immediate supervisors through another set of questionnaires (Set B). Completed matched pair of questionnaires were submitted by the immediate supervisors to the person in charged in Matron Office four weeks after the date of distribution by the immediate supervisors (sisters).

Table 4.1
Summary of the Survey Result from Participating Hospitals

Hospital	N	Questionnaire Distributed		Questionnaire Returned		Questionnaire Usable (Matched Pairs)	Sister Sample
		Set A	Set B	Set A	Set B		
Hospital Melaka (Melaka)	1217	111	111	110	111	108	35
Hospital Tengku Ampuan Rahimah (Selangor)	1283	114	114	100	102	96	31
Hospital Tuanku Jaafar (Negeri Sembilan)	1070	96	96	95	96	93	26
Hospital Raja Permaisuri Bainun (Perak)	1577	141	141	124	126	120	37
Hospital Pulau Pinang (Pulau Pinang)	1435	129	129	124	126	120	38
Hospital Tuanku Fauziah (Perlis)	577	51	51	50	50	48	17
Hospital Raja Perempuan Zainab II (Kelantan)	1317	120	120	120	120	118	36
Hospital Tengku Ampuan Afzan (Pahang)	1204	108	108	105	104	102	35
Hospital Sultanah Aminah (Johor)	1404	126	126	125	124	122	37
Hospital Umum Sarawak (Sarawak)	1430	129	129	125	128	122	39
Total	12514	1125	1125	1078	1087	1049	331

Note: Set A= Nurse's questionnaire, Set B= Supervisor's questionnaire

Table 4.1 presented the summary or returned survey forms from the participating hospitals. From a total of 1,125 pairs of distributed questionnaires, only 1,078 Set A and 1,087 Set B questionnaires were returned. Nevertheless, 29 Set A questionnaires and 38 Set B questionnaires were excluded from the study because of missing pairs and incomplete responses. Altogether, a total of 1,049 pairs of questionnaires were matched

and usable for analysis. Further, to avoid disturbing the supervisors' daily jobs, the questionnaires were distributed to not more than four nurse per supervisor as suggested by matron. Hence, 331 immediate supervisors/sisters were participated in this study and each immediate supervisor/sister was evaluates maximum of four nurses under their supervision but some of them only evaluate less than four nurses.

A response rate refers to the ratio of the number of completed returned questionnaires over the number of eligible respondents who were asked to participate in a survey study (Saunders, Lewis, & Thornhill, 2016; Zikmund, Babin, Carr, & Griffin, 2009). As stated earlier, the number of completed returned questionnaires were 1,049. Since all questionnaires were distributed only to individuals who met the research requirements, number of eligible respondents were equal to the number of distributed questionnaires, which were 1,125. As a result, this study acquired the total response rate of 93.24% (see Table 4.2) which was close to a study by Sendawula, Kimuli, Bananuka, and Muganga (2018) that reported 95.00% of response rate.

Table 4.2
Response Rate of the Study

Description	Total	Rate (%)
Eligible respondents (distributed questionnaire)	1,125	100.00
Missing pairs	9	.80
Incomplete set	67	5.96%
Completed returned questionnaire (usable sets)	1,049	93.24%
Minimum required samples	375	NA

Note: NA = Not Applicable

Table 4.2 revealed the total response rate of this study. The response rate for this study was 93.24%, similar to several previous studies that were conducted in Malaysia hospital and nursing setting. For example, the response rate in Beh and Loo (2012) study

on nurse job stress in Malaysia was 99.38%. Further, this response rate can be considered as more than enough as it exceeded the minimum sample size required to represent the studied population according to Krejcie and Morgan (1970), which is 375. Therefore, the test of non-response bias was not necessary to be conducted.

4.3 Non-Response Bias

Cooper and Schindler (2014) claimed that non-response bias occurs when responses of participants differ in some systematic way from the responses of nonparticipants. Respondent's refusal to participate in a survey is the main of cause of non-response bias (Sekaran & Bougie, 2016). According to Fowler (2014) non-response bias test only need to be conducted when the acquired response rate is below 80%. Moreover, Basson (2008) asserted that the non-response error is negligible especially when the percentage of the non-response is very little (i.e. less than 20%). Overall, this study managed to obtain the more than 80% response rate which resulting in very small non-response error. Thus, the test for non-response bias was not necessary to be conducted.

4.4 Data Preparation

Data preparation is the process of ensuring the accuracy of data and their conversion from raw form into categories appropriate for analysis that includes data entry and data coding (Cooper & Schindler, 2014). In data preparation stage, the return of respondent's responses were coded and entered into SPSS data editor. Data coding involved with assigning a numerical code to the participant's responses. The data were then being edited followed by the data transformation. In this study, data transformation was carried out for reverse coding for item 2 in section 3 of Set A questionnaire (nurse's questionnaire). Further, after all the collected data were coded, edited, and saved, the next

line of action is the process of data screening which involved several steps such as identification of the missing data and the existence of the outliers.

4.5 Data Cleaning

As suggested by Hair et al. (2017), before conducting statistical analysis using PLS-SEM technique, data cleaning procedures were conducted to examine missing data, suspicious response patterns, outliers, and normality of data distribution. Therefore, the data set used in this study was examined to address above mentioned issues.

4.5.1 Detection of Missing Data

Hair et al. (2010) defined missing data as "the information which not available about whom other information is available". Typically, missing data happened when a respondent refused to answer one or more questions in a survey (Hair et al., 2010). In simple words, missing data results from item nonresponse (Zikmund et al., 2010). If the percentage of missing data were less than 10% of the total cases, imputation methods such as mean substitution can be applied (Hair et al., 2010). Upon performing the detection of missing data in this study, frequency distribution was generated using descriptive statistics function in IBM SPSS version 25. As a result, no missing response was found in all returned questionnaires. Therefore, the process of data screening was proceeded to the next step which was examining suspicious response patterns.

4.5.2 Tracing Suspicious Response Patterns

Suspicious responses in the data set were traced by observing standard deviation values of each sample case. Zero standard deviation interprets that there is no variation in every response (answer) given by a particular sample case (respondent) (Gaskin, 2017). No

variation signifies that all questions are answered with the same rating score by a particular respondent (i.e. straight lining answers) (Hair et al., 2017). As a result, no suspicious response was identified in the data set. Hence, all 1049 respondents were carried forward to the next data screening phase which was detection for outliers.

4.5.3 Detecting Outliers

According to Zikmund et al. (2010), an outlier is a value that lies outside the normal range of the data. Normally, an outlier is judged to be an abnormally high or low value on a variable or a unique combination of values across a number of variables that make the observation stand out from the others (Hair et al., 2010). Outliers may be found in both univariate and multivariate statistics. Further, in order to detect univariate outliers, Tabachnick and Fidell (2014) proposed that any observation with a standardized value (*z*-score) of more than 3.29 ($p < 0.001$) or less than -3.29 ($p < 0.001$) is considered as a significant univariate outlier.

Meanwhile, multivariate outliers were spotted through Mahalanobis distance, which measures the distance of an observation from the centroid of the remaining cases (Tabachnick & Fidell, 2014). A sample case is considered as a significant multivariate outlier if the Mahalanobis distance (D^2) value exceeds the critical Chi-square (x^2) value (Pallant, 2016). The conservative threshold for declaring a potential multivariate outlier is when D^2 exceed x^2 value at $p < 0.001$, given degree of freedom (*df*) equals to the number of predictors (Tabachnick & Fidell, 2014). Nevertheless, this study decided to take a more stringent approach by elevating the threshold at $p < 0.05$ to retain only cases with truly quality data. Therefore, any case with D^2 value that is greater than the x^2 value of

12.592 at $df = 6$ and $p < 0.05$ were considered as multivariate outliers (see Appendix 8). Cases ID that were specified as significant outliers for both univariate and multivariate were listed as in Appendix 8.

Although there were not many outliers detected for univariate statistics, there were plenty of multivariate outliers were identified. Since, the main analysis (i.e. PLS-SEM) to be conducted in this study is categorized as a multivariate analysis, all cases specified as significant multivariate outliers were deleted from the data set. As a result, a total of 62 cases with D^2 value greater than $x^2 = 12.592$ ($df = 6$; $p < 0.05$) (see Appendix 9) were removed from the data set. This meant that only 987 cases were retained and used for subsequent analysis.

4.5.4 Normality of Data Distribution

Normality of data distribution is the benchmark for statistical methods. Data distribution is regarded as normal when its shape for an individual metric variable is correspondent to the normal distribution (Hair et al., 2010). Following Hair et al. (2017) recommendation, this study assessed normality of data distribution using skewness and kurtosis distributions. Skewness and kurtosis distributions allow researchers to evaluate the extent of the data deviates from the normal distribution. Skewness values provides an indication of the symmetry of the distribution meanwhile, kurtosis provides information about the peakedness of the distribution (Pallant, 2016). Positive skewness value will have cluster of cases to the left at a low value and negative skewness will have the score cluster at right side with long left tail (Tabachnick & Fidell, 2014).

In addition, SEM advocates strongly advised researchers to examine normality of data distribution for both univariate and multivariate statistics (Byrne, 2016; Tabachnick & Fidell, 2014; Kline, 2011). Therefore, a free access statistical power analysis online calculator named WebPower (Zhang & Yuan, 2018) was used to calculate both univariate and Mardia's multivariate skewness and kurtosis distributions (see Table 4.3). This online calculator can be accessed at https://webpower.psychstat.org. WebPower was also recommended and used in the recent literatures (Cain, Zhang, & Yuan, 2017; Ramayah, Yeap, Ahmad, Abdul Halim, & Abidur Rahman, 2017). The output of skewness and kurtosis calculation is shown in Appendix 10.

Table 4.3
Data Normality Results (N=987)

Variables	Skewness		Kurtosis	
	Statistics	*z*-score	Statistics	*z*-score
Spirituality at Work (SW)	-.358	-4.590	.263	1.686
• Inner Life (SIL)	-.699	-8.962	.544	3.487
• Meaningful Work (SMW)	-.202	-2.590	-.003	-.019
• Sense of Community (SSC)	-.305	-3.910	.125	.801
HRM Practices				
• Career Development (HRC)	-.431	-5.526	-.373	-2.391
• Employee Participation (HRP)	-.278	-3.564	-.206	-1.321
• Performance Appraisal (HRA)	-.166	-2.128	-.205	-1.314
• Training and Development (HRT)	-.340	-4.359	-.265	-1.699
Employee Engagement (EE)	-.067	-.859	-.394	-2.526
• Vigor (EEV)	-.393	-5.038	-.041	-.263
• Dedication (EED)	-.247	-3.167	-.353	-2.263
• Absorption (EEA)	-.288	-3.692	-.314	-2.013
Job Performance (PJ)	-.184	-2.359	-.297	-1.904
Task Performance (PT)	-.058	-.744	-.576	-3.692
• Information Support (PTI)	.024	.308	-.658	-4.218
• Coordination of Care (PTC)	-.405	-5.192	-.207	-1.327
• Social Support (PTS)	-.169	-2.167	-.267	-1.712
• Technical Care (PTT)	-.615	-7.885	-.406	-2.603
Contextual Performance (PC)	-.313	-4.013	-.083	-.532
• Interpersonal Support (PCI)	-.457	-5.859	-.122	-.782
• Job-task Support (PCJ)	-.446	-5.718	.051	.327
• Compliance (PCC)	-.579	-7.423	-.054	-.346

• Volunteering for Additional Duties (PCV)	-.363	-4.654	-.322	-2.064
Mardia's Multivariate Normality	29.966	429.337	567.079	18.890

Note. Skewness standard error = 0.078. Kurtosis standard error = 0.156

According to Kline (2011) data distribution is within acceptable range when the absolute value (*z*-score) of univariate skewness are not exceeding ±2 and univariate kurtosis are not beyond ±7. Meanwhile, *z*-score of multivariate normality should be within ±3 for skewness and ±20 for kurtosis to declare the data as normally distributed. Results in Table 4.3 showed all *z*-scores for univariate skewness were not within the acceptable range, except for PTI at $z = 0.308$. All *z*-scores for univariate kurtosis were within normal distribution range while for multivariate statistics, only kurtosis distribution was normal.

However, both skewness and kurtosis distributions need to be within acceptable range to declare that the whole dataset as normally distributed. Overall, this dataset had a non-normal data distribution. Nevertheless, this data set still could be used to test causal relationship using PLS-SEM, a non-parametric statistical method that does not require the dataset to be normally distributed (Reinartz, Haenlein, & Henseler, 2009). In fact, PLS-SEM can handle extremely non-normal data (highly skewed distribution) (Hair et al., 2017). Therefore, this study applied PLS-SEM technique on SmartPLS 3 software to test the hypothesized relationships.

4.6 Description of Study Sample

This section presented the profiles and the descriptive analysis of respondents. The frequency distribution and percentage were reported based on their demographic characteristics. Particularly, the demographic variables examined in this study included gender, age, marital status, ethnicity, education, job tenure, organization tenure and department. The results of the analysis were presented in Table 4.4 and Table 4.5.

4.6.1 The Staff Nurses' Profile

Table 4.4 demonstrates the demographic profile of the 987 nurse who responded to this survey. As shown in Table 4.4, the majority of the nurses participated in this study were females constituting 932, which was equivalent to 94.40% and the remaining 55 respondents representing only 5.60% of the total respondents were males. Table 4.4 also indicated that most of the nurses participated in this survey were married (64.70%), whereas only 34.30% and 0.90% were classified as a single and others marital status. In terms of ethnicity, majority of the nurses that participated in this study were Malays (85.50%), followed by Others (5.70%), Indian (5.30%) and lastly Chinese (3.50%) nurses. Regarding the education level of nurses, all of nurses had diploma (100%). In terms of department, results also found that nurses worked in various department. Of these departments, most of the nurses came from medical (26.20%), followed by pediatric (14.10%), surgical (13.40%), obstetrics and gynecology (12.00%), orthopedic (11.30%), and the least is operation theatre (0.30%).

On the other hand, the age of nurses ranged from 23 to 57 years with a mean age of 31.98 years (SD = 6.35). With regard on organization tenure, respondents reported that they have been working at current hospital between 1 to 29 years, with a mean of

6.01(SD = 4.65). In terms of length of service in nursing or job tenure, the results indicated that they have been working as nurses between 1 years to 29 years, with a mean of 7.41 and SD of 5.62. The SPSS output is shown in Appendix 11.

Table 4.4
The Nurse's Profile (N = 987 Nurse)

Demographic Variable	Category	Frequency (n)	Percentage (%)
Gender	Female	932	94.40
	Male	55	5.60
Marital Status	Single	339	34.30
	Married	639	64.70
	Others	9	0.90
Ethnicity	Malay	844	85.50
	Chinese	35	3.50
	Indian	52	5.30
	Others	56	5.70
Education Level	Diploma	987	100.00
Department	Anesthesiology	37	3.70
	Critical Care/ICU	61	6.20
	Emergency	35	3.50
	Medical	259	26.20
	Multidisciplinary Unit	23	2.30
	Obstetrics & Gynecology	118	12.0
	Oncology	23	2.30
	Operation Theatre	3	0.30
	Ophthalmology	45	4.60
	Orthopedic	112	11.3
	Pediatric	139	14.10
	Surgical	132	13.40

	Mean	SD	Min	Max
Age (Year)	31.98	6.35	23	57
Organizational Tenure (Year)	6.01	4.65	1	29
Job Tenure (Year)	7.41	5.62	1	29

4.6.2 The Sisters/Immediate Supervisors' Profile

The immediate supervisors' demographic characteristics are presented in Table 4.5. A total of 331 immediate supervisors (sisters) participated in this survey. All sisters were female (100%). Majority of the sisters were married (92.10%), while the percentage of those who are single is 6.30% and others is 1.50%. With regard to the ethnicity, most of the sisters were Malay (76.70%), followed by Chinese (11.50%), Indian (6.00%) and Others (5.70%). In terms of education achievements, 286 or 86.40% of sisters had diploma, 12.70% of sisters had degree and the remaining 0.90% or 3 sisters had master. The results also report that most of the sisters came from medical department (23.90%), followed by surgical (14.20%), pediatric (13.90%), orthopedic (11.80%), obstetrics and gynecology (11.20%) and the least is operation theatre (0.30%).

On the other hand, the age of sister ranged from 34 years to 59 years with a mean age of 45.73 years (SD = 6.23). With regard on organization tenure, respondents reported that they have been working at current hospital between 3 years to 35 years, with a mean of 15.20(SD = 6.69). In terms of length of service in nursing or job tenure, the results indicated that they have been working as nurses between 8 years to 35 years, with a mean of 20.74 and SD of 6.00. The SPSS output for descriptive analysis of sisters can be seen in Appendix 12.

Table 4.5
The Sisters/Immediate Supervisors' Profile (*N = 331 Sisters)*

Demographic Variable	Category	Frequency (n)	Percentage (%)
Gender	Female	331	100.00
Marital Status	Single	21	6.30
	Married	305	92.10
	Others	5	1.50

Ethnicity	Malay	254	76.70
	Chinese	38	11.50
	Indian	20	6.00
	Others	19	5.70
Education Level	Diploma	286	86.40
	Degree	42	12.70
	Master	3	0.90
Department	Anesthesiology	15	4.50
	Critical Care/ICU	19	5.70
	Emergency	12	3.60
	Medical	79	23.90
	Multidisciplinary Unit	9	2.70
	Obstetrics & Gynecology	37	11.20
	Oncology	10	3.00
	Operation Theatre	1	0.30
	Ophthalmology	17	5.10
	Orthopedic	39	11.80
	Pediatric	46	13.90
	Surgical	47	14.20

	Mean	SD	Min	Max
Age (Year)	45.73	6.23	34	59
Organizational Tenure (Year)	15.20	6.69	3	35
Job Tenure (Year)	20.74	6.00	8	35

4.7 Measurement Model Assessment

Measurement model is an element of a path model that contains the indicators and their relationships with the constructs. It is also called the outer model in PLS-SEM (Hair et al., 2017). In this study, measurement model analysis was performed using PLS Algorithm procedure in SmartPLS version 3 (Ringle et al., 2015) to assess construct reliability and validity. Since there were multidimensional latent variables (constructs) in the research model, this study employed second order measurement model analysis using embedded two stage approach.

Embedded two stage approach is a technique to assess the validity of higher order construct (HOC) in SmartPLS (Sarstedt et al., 2019). This technique was applied to this measurement model to overcome the shortcoming of conventional approach to analyze HOC. The conventional approach is called 'repeated indicator' (Becker, Klein, & Wetzels, 2012). In repeated indicator analysis, the correct average variance extracted (AVE) and composite reliability (ρ_C) for HOC will not appear in the model output, hence researchers need to do further calculation manually or using self-developed MS Excel template.

Embedded two-stage approach involves two stages of measurement model assessment as the following:

1. Stage One: Applying repeated indicator approach to obtain latent variable scores for the lower order constructs (LOC). LOC's reliability and validity are also assessed during this stage.
2. Stage Two: Using LOC latent variable scores as the indicator to establish HOC. Then, HOC's reliability and validity are assessed.

Since the research model in the present study comprised a third order construct (i.e. Job Performance), stage two of the embedded two stage approach was employed twice. Figure 4.1 illustrated Stage One of the measurement model assessment. On the other hand, Figure 4.2 and Figure 4.3 illustrated Stage Two assessment for second order constructs and third order construct respectively.

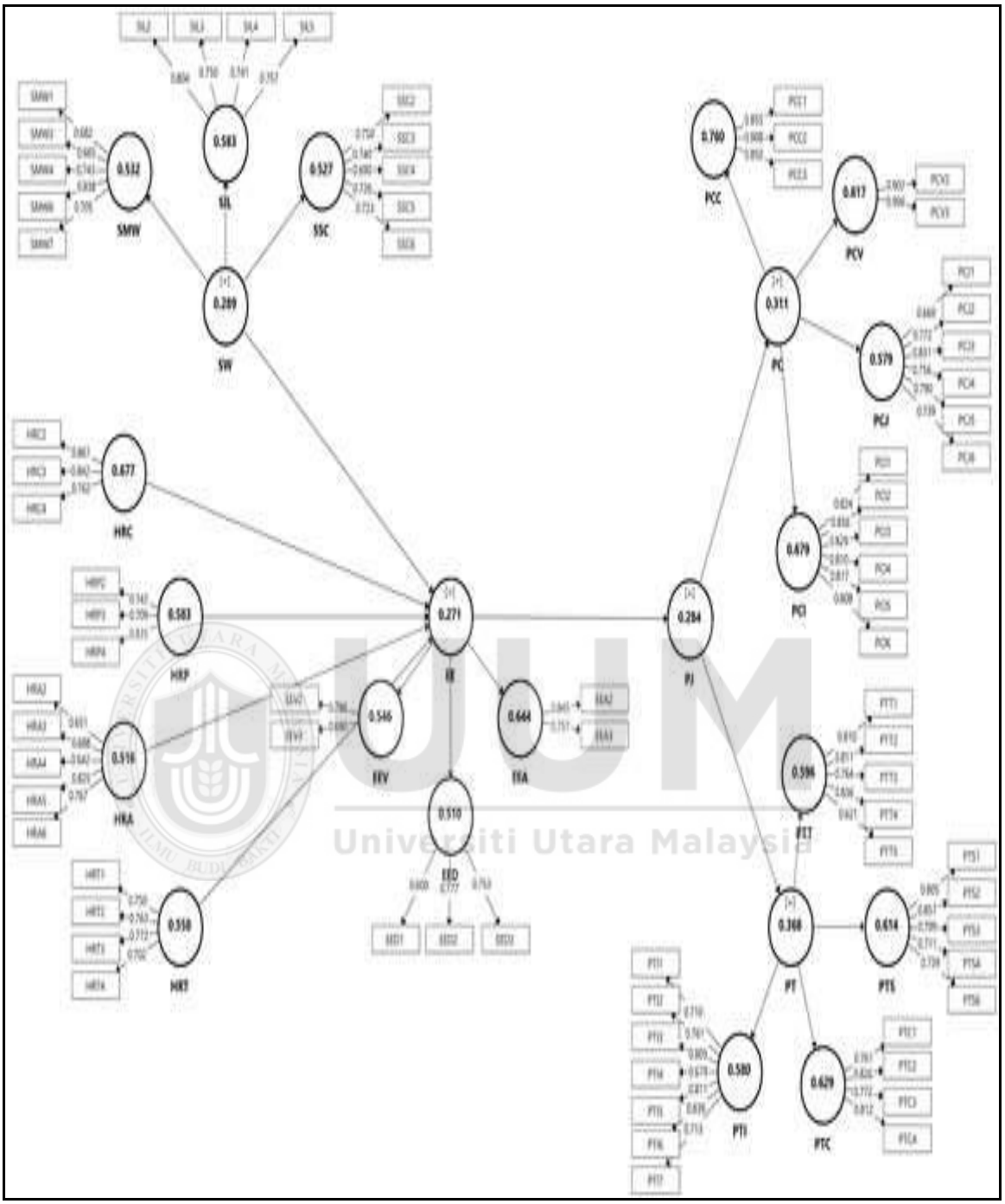


Figure 4.1

Measurement Model Stage One

Note: Values inside constructs = AVE, Values on arrows = factor loadings, PJ = Job Performance, SW = Spirituality at Work, EE = Employee Engagement, PT = Task Performance, PC = Contextual Performance, SMW = Meaningful Work, SIL = Inner Life, SSC = Sense of Community, HRC = Career Development, HRP = Employee Participation, HRA = Performance Appraisal, HRT = Training and Development, EEV = Vigour, EED = Dedication, EEA = Absorption, PTI = Information Support, PTC = Coordination Care, PTS = Social Support, PTT = Technical Care, PCI = Interpersonal Support, PCJ = Job-task Support, PCC = Compliance, PCV = Volunteering for Additional Duties.

Figure 4.1 illustrated the first stage of measurement model assessment whereby there were 23 latent variables: one third order HOC (i.e. PJ), four second order HOCs (i.e. SW, EE, PT, and PC) and 18 LOCs (i.e. SMW, SIL, SSC, HRC, HRP, HRA, HRT, EEV, EED, EEA, PTI, PTC, PTS, PTT, PCI, PCJ, PCC, and PCV). LOCs were representing the dimensions of HOCs. Full output is shown in Appendix 13.

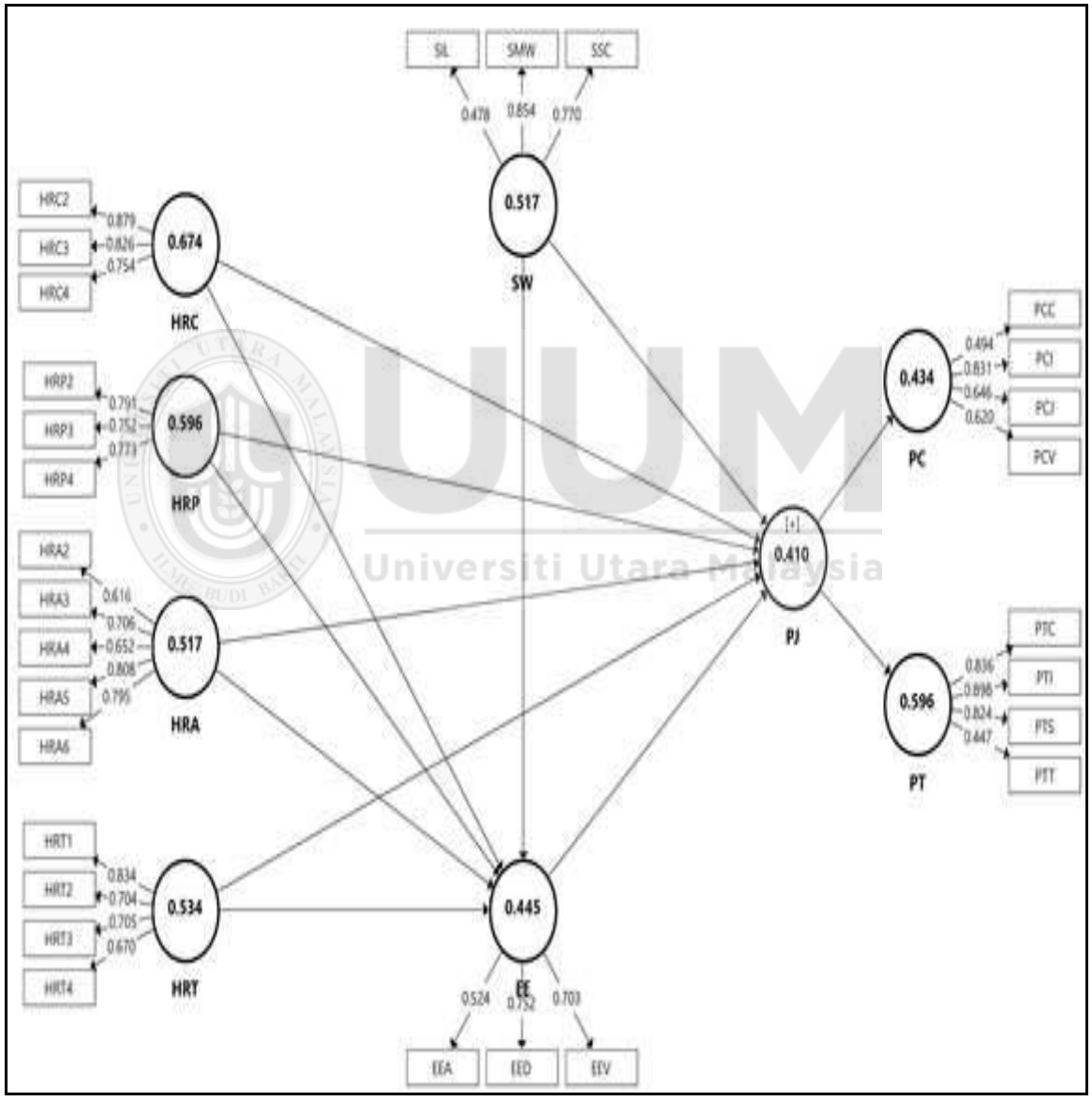


Figure 4.2
Measurement Model Stage Two
Note. Values inside constructs = AVE. Values on arrows = factor loadings

Figure 4.2 illustrated the second stage of measurement model assessment for second order constructs. Overall, there were nine latent variables (i.e. SW, HRC, HRP, HRA, HRT, EE, PT, PC, and PJ). In this stage, the dimensions of; SW (SIL, SMW, SSC), EE (EEV, EED, EEA), PT (PTI, PTC, PTS, PTT), and PC (PCI, PCJ, PCC, PCV) were transformed into indicators (items) using the latent variable scores of each respective dimension. Full output can refer to Appendix 14.

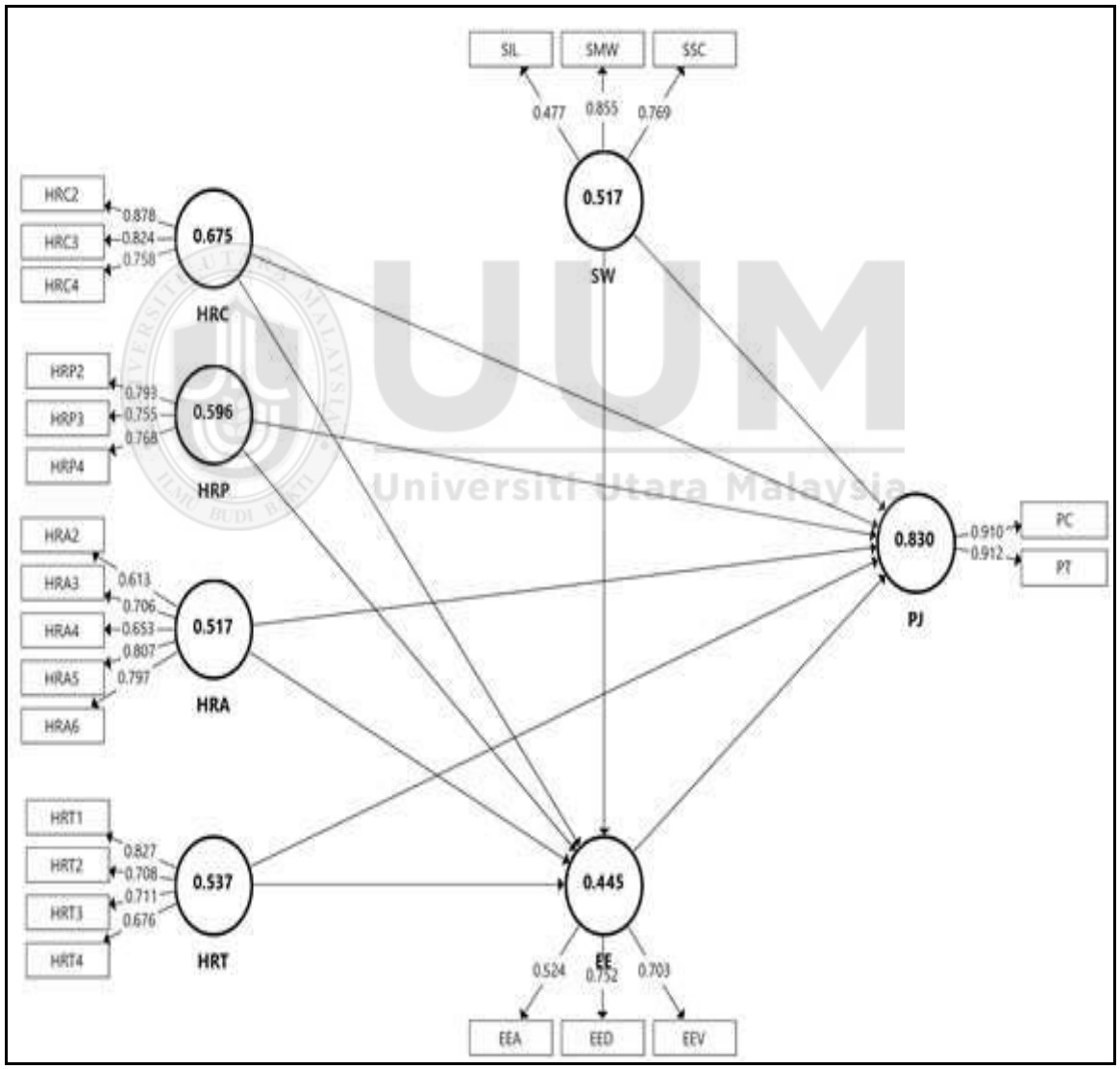


Figure 4.3
Measurement Model Stage Two
Note. Values inside constructs = AVE. Values on arrows = factor loadings

Figure 4.3 illustrated the second stage of measurement model assessment (see Appendix 12) for third order construct, whereby there were only seven latent variables (i.e. SW, HRC, HRP, HRA, HRT, EE, and PJ). In this stage, the dimensions of PJ (i.e. PT and PC) were transformed into indicators (items) using the latent variable scores of each respective dimension. Construct reliability and validity tests provided by measurement model assessment in PLS-SEM are including internal consistency reliability, convergent validity, and discriminant validity (Hair et al., 2017). Thus, this study included the reporting of these tests in the following subsections. Full output can refer to Appendix 15.

4.7.1 Internal Consistency Reliability and Convergent Validity

Internal consistency reliability is the degree to which the items that make up the scale are all measuring the same underlying attribute (Pallant, 2016). In this study, internal consistency reliability was measured using composite reliability coefficient (ρ_C). On the other hand, convergent validity refers to the overlap (or correlation) between questionnaire items that have been used to measure the same construct (Saunders et al., 2016). Convergent validity is determined through average variance extracted (AVE) values. The result of internal consistency reliability and convergent validity were summarized as in Table 4.6 and Table 4.7. The PLS algorithm output can refer to Appendix 16.

Table 4.6
Internal Consistency & Convergent Validity Results (Multidimensional Constructs)

Constructs		Items	Loading	ρ_C	AVE
LOC	HOC				
Inner Life (SIL)		SIL2	.804	.848	.583
		SIL3	.750		
		SIL4	.741		
		SIL5	.757		
Meaningful		SMW1	.682	.849	.532

Work (SMW)		SMW3	.665		
		SMW4	.743		
		SMW6	.838		
		SMW7	.705		
Sense of Community (SSC)		SSC2	.750	.848	.527
		SSC3	.740		
		SSC4	.690		
		SSC5	.726		
		SSC6	.723		
		SIL	.478		
	Spirituality at Work (SW)	SMW	.854	.753	.517
		SSC	.770		
Vigor (EEV)		EEV2	.786	.706	.546
		EEV3	.690		
Dedication (EED)		EED1	.600	.756	.510
		EED2	.777		
		EED3	.753		
Absorption (EEA)		EEA2	.845	.783	.644
		EEA3	.757		
	Employee Engagement (EE)	EEV	.703	.702	.445
		EED	.752		
		EEA	.524		
Information Support (PTI)		PTI1	.710	.906	.580
		PTI2	.761		
		PTI3	.805		
		PTI4	.679		
		PTI5	.811		
		PTI6	.839		
		PTI7	.713		
Coordination of Care (PTC)		PTC1	.761	.871	.629
		PTC2	.826		
		PTC3	.772		
		PTC4	.812		
Social Support (PTS)		PTS1	.805	.888	.614
		PTS2	.857		
		PTS3	.799		
		PTS4	.711		
		PTS6	.739		
Technical Care (PTT)		PTT1	.810	.880	.596
		PTT2	.811		
		PTT3	.764		
		PTT4	.836		
		PTT5	.621		
	Task Performance (PT)	PTI	.898	.848	.596
		PTC	.836		
		PTS	.824		

	PTT	.447		
Interpersonal Support (PCI)	PCI1	.824	.927	.679
	PCI2	.856		
	PCI3	.829		
	PCI4	.810		
	PCI5	.817		
	PCI6	.808		
Job-task Support (PCJ)	PCJ1	.669	.892	.579
	PCJ2	.772		
	PCJ3	.831		
	PCJ4	.756		
	PCJ5	.790		
	PCJ6	.739		
Compliance (PCC)	PCC1	.855	.904	.760
	PCC2	.908		
	PCC3	.850		
Volunteering (PCV)	PCV2	.902	.899	.817
	PCV3	.906		
Contextual Performance (PC)	PCI	.831	.748	.434
	PCJ	.646		
	PCC	.494		
	PCV	.620		
Task Performance (PT)	PTI	.898	.848	.596
	PTC	.821		
	PTS	.829		
	PTT	.464		
Contextual Performance (PC)	PCI	.852	.748	.434
	PCJ	.735		
	PCC	.544		
	PCV	.754		
Job Performance (PJ)	PT	.910	.830	.907
	PC	.912		

Note. SIL1, SMW2, SMW3, SMW5, SSC1, SSC7, SSC8, SSC9, EEV1, EEA1, PTC5, PTS5, and PCV1 were deleted to achieve convergent validity.

Table 4.6 presented results of internal consistency reliability and convergent validity for multidimensional constructs. The minimum requirement of convergent validity for a construct is to have at least AVE of 0.5 (Hair et al., 2014; Gefen et al., 2000; Fornell & Larcker, 1981), while the satisfactory level for ρ_C coefficient is more than 0.7 (Gefen et al., 2000). As a result, all multidimensional constructs in this measurement

model had achieved convergent validity threshold with AVE values as low as 0.510 and as high as 0.817 except for two constructs; Employee Engagement (EE) and Contextual Performance (PC). Nevertheless, according to Fornell and Larcker (1981), AVE of 0.40 and above is still acceptable when the affected construct showed composite reliability more than 0.7 ($\rho_C > 0.70$). Hence, convergent validity for both Employee Engagement (EE) and Contextual Performance (PC) were considered as fulfilled.

Moreover, few items such as SMW1, SMW3, SSC4, EEV3, EED1, PTI4, PTT5, and PCJ1 were retained in spite of demonstrating factor loadings less than the standard threshold at $r < 0.708$ (Hair et al., 2017). Researchers are allowed to retain items with factor loading as low as 0.50 (Byrne, 2016) or 0.40 (Hulland, 1999), as long as that particular construct has achieved its convergent validity requirement (AVE = 0.50). Hence, only 17 items (18.9%) were deleted to fulfil convergent validity requirement. According to Hair et al. (2017), researchers are permitted to delete up to 20% of items from total items in the model for achieving construct validity without compromising its content validity. Therefore, deletion of 18.9% items from this measurement model did not violate this rule of thumb. Besides that, all these constructs also fulfilled composite reliability requirement with ρ_C coefficients were ranging from 0.702 to 0.927.

Table 4.7
Internal Consistency and Convergent Validity Results (Unidimensional Constructs)

Constructs	Items	Loadings	ρ_c	AVE
HRM Practices: Career Development (HRC)	HRC2	.878	.861	.675
	HRC3	.824		
	HRC4	.758		
HRM Practices: Employee Participation (HRP)	HRP2	.793	.816	.596
	HRP3	.755		
	HRP4	.768		
HRM Practices: Performance	HRA2	.613	.841	.517

Appraisal (HRA)	HRA3	.706		
	HRA4	.653		
	HRA5	.807		
	HRA6	.797		
HRM Practices: Training and Development (HRT)	HRT1	.827	.822	.537
	HRT2	.708		
	HRT3	.711		
	HRT4	.676		

Note. HRC1, HRP1, HRA1, HRA7 were deleted to achieve convergent validity.

On the other hand, Table 4.7 displayed results of internal consistency reliability and convergent validity for unidimensional constructs. In this study, all HRM-related variables were analyzed as unidimensional constructs. Similar to multidimensional constructs, these unidimensional constructs also fulfilled convergent validity and composite reliability requirements after few items were deleted. All unidimensional constructs produced AVE values ranging from 0.517 to 0.675. and ρ_C coefficients as low as 0.816 and as high as 0.861.

4.7.2 Discriminant Validity

The measurement model was further assessed for discriminant validity test. PLS-SEM offers three options to assess discriminant validity which includes cross-loadings, Fornell-Larcker criterion, and Hetereotrait-Monotrait (HTMT) ratio (Ramayah et al. 2018). However, recent criticism on the limitation of cross-loadings approach and Fornell-Larcker criterion to reliably assess discriminant validity under several circumstances triggered. Henseler et al. (2015) propose HTMT ratio as an alternative assessment. HTMT is the ratio between mean of all items' correlations across constructs measuring different constructs and the mean of the average items' correlations measuring the same construct. On that account, this study reported discriminant validity assessment using HTMT ratio (see Table 4.8).

The HTMT ratio that is greater than 0.90 indicates a problem of discriminant validity (Gold, Malhotra, & Segars, 2001). Also, Sarstedt et al. (2019) denoted several guidelines in assessing discriminant validity for second order measurement model as the following:

1. LOCs to demonstrate discriminant validity among each other and to all other constructs in the model except for their own HOC, and
2. HOCs to exhibit discriminant validity to all other constructs in the model.

Table 4.8
Discriminant Validity Results (HTMT Ratio)

	SW	SIL	SMW	SSC	HRC	HRP	HRA	HRT	EE	EEV	EED	EEA	PJ	PT	PTI	PTC	PTS	PTT	PC	PCI	PCJ	PCC	PCV
SW																							
SIL	-																						
SMW	-	.246																					
SSC	-	.218	.559																				
HRC	.573	.128	.317	.558																			
HRP	.450	.063	.289	.449	.559																		
HRA	.884	.152	.701	.686	.526	.476																	
HRT	.418	.264	.219	.258	.359	.137	.207																
EE	.677	.264	.386	.361	.286	.365	.304	.329															
EEV	.437	.142	.474	.316	.258	.261	.242	.295	-														
EED	.432	.253	.355	.331	.159	.259	.249	.200	-	.371													
EEA	.235	.181	.136	.201	.188	.209	.157	.176	-	.227	.668												
PJ	.545	.187	.445	.298	.123	.142	.177	.333	.719	.889	.446	.132											
PT	.538	.185	.407	.282	.098	.110	.169	.325	.628	.820	.386	.089	-										
PTI	.366	.147	.396	.243	.051	.074	.137	.273	.445	.750	.374	.091	-	-									
PTC	.333	.123	.308	.283	.082	.068	.124	.220	.374	.782	.274	.048	-	-	.816								
PTS	.336	.161	.328	.236	.082	.088	.129	.239	.446	.840	.360	.063	-	-	.762	.628							
PTT	.236	.151	.226	.139	.087	.100	.098	.199	.191	.212	.183	.070	-	.635	.310	.287	.259						
PC	.710	.154	.413	.263	.194	.245	.298	.390	.886	.881	.444	.167	-	.691	.643	.632	.598	.298					
PCI	.302	.134	.302	.214	.152	.104	.103	.267	.347	.497	.345	.046	-	.679	.648	.668	.510	.312	-				
PCJ	.177	.076	.167	.139	.077	.142	.065	.140	.371	.646	.309	.068	-	.361	.307	.297	.382	.151	-	.386			
PCC	.259	.087	.322	.142	.085	.101	.232	.093	.288	.388	.095	.324	-	.117	.118	.103	.107	.037	-	.118	.052		
PCV	.267	.076	.334	.157	.021	.079	.128	.164	.431	.833	.336	.065	-	.469	.452	.386	.441	.180	-	.316	.203	.020	

Note : PJ = Job Performance, SW = Spirituality at Work, EE = Employee Engagement, PT = Task Performance, PC = Contextual Performance, SMW = Meaningful Work, SIL = Inner Life, SSC = Sense of Community, HRC = Career Development, HRP = Employee Participation, HRA = Performance Appraisal, HRT = Training and Development, EEV = Vigour, EED = Dedication, EEA = Absorption, PTI = Information Support, PTC = Coordination Care, PTS = Social Support, PTT = Technical Care, PCI = Interpersonal Support, PCJ = Job-task Support, PCC = Compliance, PCV = Volunteering for Additional Duties.

Results in Table 4.8 demonstrated that all LOCs demonstrated discriminant validity among each other and to all other constructs with HTMT ratios below 0.90. In the same vein, discriminant validity was evident between HOCs and all other constructs with the same threshold. Hence, it was confirmed that there was no discriminant validity problem between all constructs in the measurement model. The output of HTMT ratio can refer to Appendix 17.

4.8 Descriptive Analysis of Study Variables

This section briefly described the descriptive statistics such as mean and standard deviations (SD) of the dimensions and variables being studied. Specifically, means and SD were analyses to identify the characteristics of the sample for the study. Table 4.9 present the means and SD for seven dimensions of independent variables; three dimensions of SAW (i.e. inner life, meaningful work, and sense of community), and four dimensions of HRM practices (i.e. career development, employee participation, performance appraisal, training and development), employee engagement as mediating variable, and finally two dimensions of job performance; task performance (i.e. information support, coordination care, social support, technical care) and contextual performance (i.e. interpersonal support, job-task support, compliance, volunteering for additional duties) as the dependent variable. Responses to this study were measured on a 7-point Likert scale. According to Hair et al. (2010), if the estimated SD is less than 1, it means the respondents were very consistent with their opinions, while if the estimated SD is larger than 3, it means the respondents had a lot of variability in their opinions.

Table 4.9 shows that, the mean value for the three dimensions (i.e. inner life, meaningful work, and sense of community) under SW variable show an average value

ranged from 5.616 to 5.921. Among the three dimensions of SW, inner life (mean = 5.921, SD = 0.642) was highly perceived by the respondents as the most demanding dimension of nursing job. Since inner life of respondents is about finding an opportunity at work to express an individual's hopefulness, awareness of personal values, and concern for spirituality, perhaps this might contribute to job performance of nurse. Sense of community (mean = 5.616, SD = 0.652) was perceived as the least demanding aspect of SW. On other hand, for HRM practices, the mean values for the four dimensions (i.e. career development, employee participation, performance appraisal, and training and development) of this variable range from 5.413 to 5.560. Performance appraisal was perceived as the most highly perceived practice (mean = 5.560, SD = 0.615) by respondents since appraisal practices influenced on individual and team behavior as well as used for making decisions like training. The lowest mean of HRM practices was career development (mean = 5.413, SD = 0.743). As for mediating variable, employee engagement, the mean = 5.427, SD = 0.523. Further, as can be seen from Table 4.8, the mean value for sub-dimensions of task performance, coordination care (mean = 5.902, SD = 0.737) is the most highly perceived while technical care (mean = 5.430, SD = 0.029) was perceived as the least demanding aspect. For contextual performance which also served as dimensions of job performance, the mean of compliance scored on the higher (mean = 5.848, SD = 0.867) while the mean of job-task support (mean = 5.032, SD = 0.896) scored on the lowest. Therefore, based on information provided in Table 4.9, standard deviation for all variables were less than 1.00, which indicate that the variations on the respondents' opinion were small. The SPSS output is presented in Appendix 18.

Table 4.9
Means and Standard Deviations of Variables

Variables	Mean	SD
Independent Variables		
Spirituality at Work (SW)	5.737	0.448
• Inner Life (SIL)	5.921	0.642
• Meaningful Work (SMW)	5.673	0.622
• Sense of Community (SSC)	5.616	0.652
HRM Practices		
• Career Development (HRC)	5.415	0.773
• Employee Participation (HRP)	5.429	0.661
• Performance Appraisal (HRA)	5.560	0.615
• Training and Development (HRT)	5.413	0.743
Mediating Variable		
Employee Engagement (EE)	5.427	0.523
Vigor (EEV)	5.636	0.799
Dedication (EED)	5.455	0.726
Absorption (EEA)	5.190	0.863
Dependent Variables		
Job Performance (PJ)	5.590	0.495
Task Performance (PT)	5.683	0.586
• Information Support (PTI)	5.817	0.582
• Coordination of Care (PTC)	5.901	0.737
• Social Support (PTS)	5.587	0.805
• Technical Care (PTT)	5.430	0.029
Contextual Performance (PC)	5.496	0.533
• Interpersonal Support (PCI)	5.694	0.823
• Job-task Support (PCJ)	5.032	0.896
• Compliance (PCC)	5.848	0.867
• Volunteering for Additional Duties (PCV)	5.412	0.932

Note: N = 987

4.9 Common Method Variance

Survey studies are normally subjected to common method variance (Hulland, Baumgartner, & Smith, 2018; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Common method variance (CMV) or common method bias (CMB) is variance that is attributable to the measurement method rather than to the construct of interest (Podsakoff et al., 2003). CMV poses a problem in survey studies because it might cause measurement error that

disputes the validity of the conclusions on the relationships between measures (Podsakoff et al., 2003; Bagozzi, Yi, & Phillips, 1991; Nunnally, 1978).

Nevertheless, this study had employed some procedural remedies to prevent CMV as recommended by Podsakoff et al. (2003). Firstly, researcher had designed the survey questionnaire with proximal separation. Proximal separation refers to physical distance between measures of the criterion and predictor variables. Introducing proximal separation enables researcher to reduce respondent's ability and/or motivation to use previous answers (short-term memory information) to answer subsequent questions. On that account, the survey questionnaire used in this study in different sections and set. Mediating variable and independent variables were compiled in survey questionnaire Set A, while dependent and variables were presented in Set B.

In addition, questionnaire Set A and Set B were answered by different individuals. This approach also is another procedural remedies technique suggested by Podsakoff et al. (2003). Gathering data of predictor and criterion variables from different sources can eliminate the effects of consistency motifs, idiosyncratic implicit theories, social desirability tendencies, dispositional mood states, and tendencies on the part of the respondent to respond in a lenient, moderate, or extreme manner because they make it impossible for the mind-set of a common respondent to bias the predictor-criterion relationship.

Besides that, this study performed full collinearity test introduced by Kock and Lynn (2012) to confirm whether CMV was still present in the structural model or had been successfully eliminated. Full collinearity test requires observation of variance

inflation factors (VIFs) that have been generated for all latent variables in a structural model (see Table 4.10). This test also has been employed in other recent studies (Krey, Chuah, Ramayah, & Rauschnabel, 2019; Hassan, Masron, Mohamed, & Ramayah, 2018). The full collinearity test output for common method variance can refer Appendix 19.

Table 4.10
Full Collinearity Test Results

Latent Variables	VIF
Spirituality at Work (SW)	2.014
HRM: Career Development (HRC)	1.388
HRM: Employee Participation (HRP)	1.828
HRM: Performance Appraisal (HRA)	1.713
HRM: Training and Development (HRT)	1.238
Employee Engagement (EE)	1.229
Job Performance (PJ)	2.000

Note: N = 987

Kock (2015) claimed that CMV poses as a problem when any of the latent variable demonstrates VIF value greater than 3.3. Table 4.10 presented that VIF value for every latent variable under study were not exceeded 3.3, hence it was evident that CMV was not a threat in this study.

4.10 Structural Model

Structural model analysis or also known as the significance testing is the process of testing whether a certain relationship between two or more constructs are likely occurred by chance or not (Hair et al., 2017; Saunders et al., 2016). Following the recent guidelines advocated by Hair et al. (2019), structural model analysis involves six assessment sequences which include the evaluation of:

1. collinearity issues,
2. model's exploratory power (R^2),

3. predictors' effect sizes (f^2),
4. model's predictive accuracy (Q^2),
5. model's predictive power (Q^2 predict), and
6. significance of structural model relationships.

Thus, this study presents the result of structural model analysis following these sequences.

4.10.1 Collinearity Assessment

Multicollinearity or also known as collinearity issue (Hair et al., 2017) occurs when more than two predictor variables in a multiple regression model are highly correlated (Sekaran & Bougie, 2016; Cooper & Schindler, 2014). An extreme collinearity issue is called singularity, in which a predictor variable is perfectly predicted (correlation of 1.0) by another predictor variable (Hair et al., 2010). As collinearity increases, it complicates the interpretation of the variate because it is more difficult to ascertain the effect of any single variable, owing to their interrelationships (Hair et al., 2010). By any means, the existence of collinearity issue could adversely affect the statistical significance of the regression coefficients. Hair et al. (2017) suggested the evaluation of variance inflation factor (VIF) values to assess the severity of collinearity issue in a PLS-SEM path model (see Table 4.11). The output of inner VIF is shown in Appendix 20.

Table 4.11
Results of Collinearity Assessment

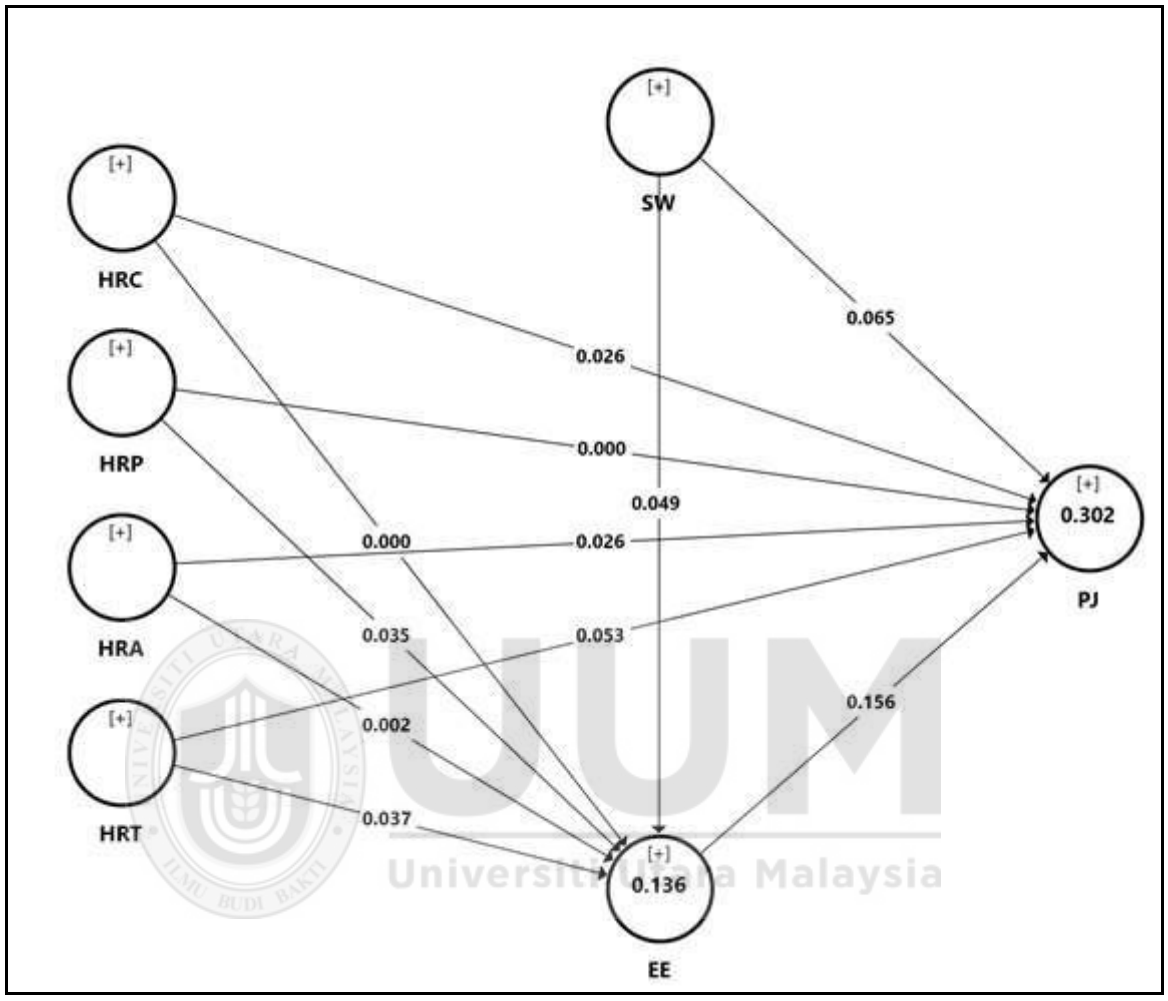
Constructs	Collinearity (VIF)	
	EE	**PJ**
Spirituality at Work (SW)	1.796	1.884
Career Development (HRC)	1.399	1.399
Employee Participation (HRP)	1.246	1.259
Performance Appraisal (HRA)	1.833	1.836
Training and Development (HRT)	1.119	1.131
Employee Engagement (EE)	-	1.124

Note: N= 987

The VIF statistic of 5 or greater are suggesting that collinearity issue may mislead the structural model findings (Hair et al., 2017). Table 4.11 revealed all VIFs were less than 3.3. Hence, collinearity was not a severe problem in this structural model and the results that would be produced would not be misled.

4.10.2 Model's Explanatory Power and Predictor's Effect Size

Model's explanatory power is measured by coefficient of determination, R^2 (Hair et al., 2019; Shmueli & Koppius, 2011). R^2 interprets the combined effect of predictor variables on dependent variable (Ramayah et al., 2018), and is therefore a measure of the model's in-sample predictive power (Rigdon, 2012). Generally, R^2 values of 0.26, 0.13, and 0.02 are classified as substantial, moderate, and weak respectively (Cohen, 1988). As a result, PJ demonstrated a substantial explanatory power at $R^2 = 0.302$, which implying that all predictors (i.e. SW. HRC, HRP, HRA, HRT and EE) had explained 30.2% of variance in Job Performance. On the other hand, EE had a moderate level explanatory power ($R^2 = 0.136$) and implying that Spirituality at Work and all four Human Resource Management practices explained 13.6% of variance in Employee Engagement (see Figure 4.4). The R-square output from PLS is shown in Appendix 20.



Note: Values on arrows = f^2. Values inside construct = R^2

Figure 4.4
Main Effect Model

While R^2 interprets the combined effect of predictor variables on dependent variable, Hair et al. (2014) also suggested that substantive effect of each predictor variable on dependent variable should be reported. This substantive effect is known as effect sizes (f^2). In SmartPLS version 3, the result of effect sizes (f^2) are automatically provided by the software, unlike the previous version where analyst need to manually calculate it. Effect size (f^2) indicates the change in the R^2 value when a specified

exogenous construct is omitted from the structural model (see Table 4.12). The output of f^2 is shown in Appendix 20.

Table 4.12
Results of Variance Explain (R2) and Effect Sizes (f2)

Relationships	Effect Size		Explanatory Power (R^2)
	(f^2)	Magnitude	
H1: SW → PJ	.065	Small	.302
H2.1: HRC → PJ	.026	Small	
H2.2: HRP → PJ	-	None	
H2.3: HRA → PJ	.026	Small	
H2.4: HRT → PJ	.053	Small	
H5: EE → PJ	.156	Medium	
H3: SW → EE	.049	Small	.136
H4.1: HRC → EE	-	None	
H4.2: HRP → EE	.035	Small	
H4.3: HRA → EE	.002	None	
H4.4: HRT → EE	.037	Small	

As recommended by Hair et al. (2014), Jacob Cohen's guideline was used to determine the magnitudes of f^2. The magnitudes are 0.02, 0.15, and 0.35, representing small, medium, and large effects respectively (Cohen, 1988). Table 4.12 showed that most predictors contributed small effects to both Employee Engagement and Job Performance at f^2 ranged from 0.026 to 0.065. There was only one medium-sized effect identified, i.e. effect of Employee Engagement on Job Performance at $f^2 = 0.156$. On the other hand, no effect was found for Employee Participation on Job Performance ($f^2 = 0$), Career Development on Employee Engagement ($f^2 = 0$), and Performance Appraisal on Employee Engagement ($f^2 = 0.002$).

4.10.3 Model's Predictive Accuracy

The structural model predictive accuracy or also known as model's predictive relevance is measured using a metric called Q^2 (Geisser, 1975; Stone, 1974). Q^2 is computed to assess whether a model accurately predicts data not used (out-of-sample prediction) in combination with in-sample explanatory power in the estimation of model parameters (Sarstedt et al., 2017; Shmueli et al., 2016). In SmartPLS, Q^2 value is computed using the blindfolding procedure; a resampling technique that systematically deletes and predicts every data point of the indicators in the reflective measurement model of endogenous construct (Ramayah et al., 2018).

In general, Q^2 value should be larger than zero ($Q^2 > 0$) to indicate acceptable predictive accuracy for a certain endogenous construct (Hair et al., 2014; Fornell & Cha, 1994). Nevertheless, recent guideline introduced by Hair et al. (2019) indicated that Q^2 values of 0.1 to 0.249 as small, 0.25 to 0.499 as medium, and 0.50 and higher as large. As a result, all endogenous constructs in this structural model demonstrated a small predictive accuracy at $Q^2 = 0.044$ and $Q^2 = 0.249$ for Employee Engagement and Job Performance respectively (see Table 4.13). Hence, this result was implying that predicted relationships between independent variables with mediator and dependent variables were accurate and relevant. The output for predictive accuracy can refer to Appendix 21.

Table 4.13
Results of Predictive Accuracy

Latent Variables	Predictive Relevance (Q^2)
Employee Engagement (EE)	.044
Job Performance (JC)	.249

Note: N = 987

4.10.4 Model's Predictive Power

The Structural model predictive power is measured based on Q^2_predict and root square mean error (RMSE) generated from PLSpredict procedure (Shmueli et al., 2019; Schmueli et al., 2016). Hair et al. (2019) recommended the reporting of Q^2_predict to ensure that a PLS-SEM structural model has a substantiated model's predictive power. PLSpredict is a set of procedures for out-of-sample prediction that involves estimating the model on an analysis (training) sample and evaluating its predictive performance on a holdout data sample (Hair et al., 2019; Schmueli et al., 2016). Interpretation of out-of-sample predictive power should focus on the model's key endogenous construct (Hair et al., 2019; Schmueli et al., 2019), which was Job Performance (PJ) in this study (see Table 4.14). The output of PLSpredict is shown in Appendix 21.

Table 4.14
Results of PLSpredict

Items	PLS-SEM RMSE	PLS-SEM Indicator $Q^2_{predict}$	PLS-SEM Latent $Q^2_{predict}$	LM RMSE	PLS-SEM - LM RMSE
PT	.893	.203	.187	.910	-.017
PC	.926	.145		.930	-.004

Note. LM = Linear regression Model, RMSE = Root Mean Square Error

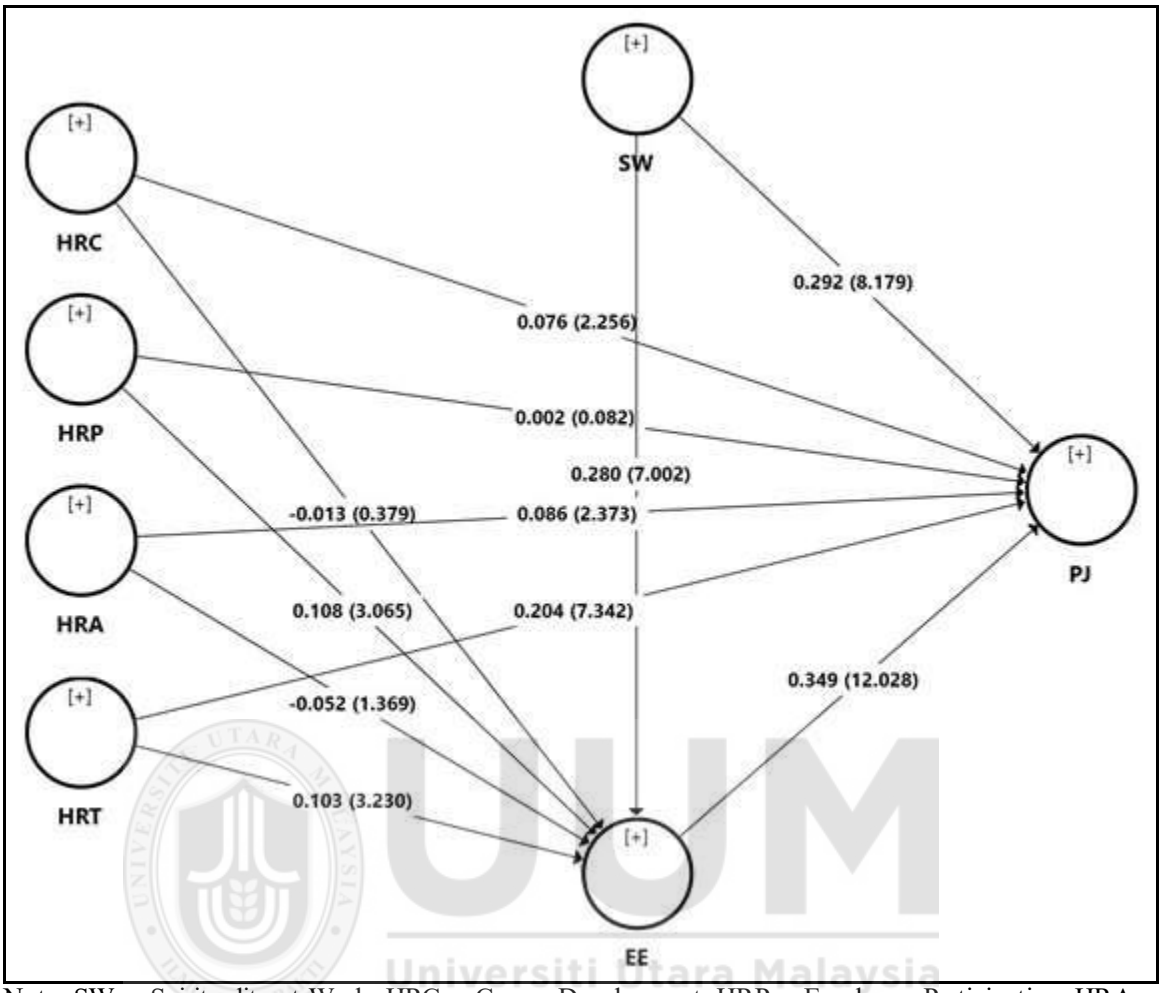
Table 4.14 presented the result of out-of-sample predictive power based on Q^2_predict and root mean square error (RMSE). Following Shmueli et al. (2019) guidelines, the Q^2_predict statistic should be evaluated first to verify that the predictions outperform the most naïve benchmark, defined as the indicator means from the analysis sample. Similar to Q^2 values for measuring predictive accuracy, Q^2_predict of over zero ($Q^2_{predict} > 0$) indicates the structural model is having sufficient out-of-sample predictive power (Hair et al., 2019). Apparently, $Q^2_{predict}$ for all indicators of Job Performance (PJ)

were more than zero (i.e. 0.203 for PT and 0.145 for PC). Thus, this model out-of-sample predictive power was sufficient.

Then, researchers need to evaluate the prediction statistics, and, in most instances, researchers should assess the RMSE (Hair et al., 2019). According to Shmueli et al. (2019), when none of the indicators of key endogenous construct in the PLS-SEM analysis has higher RMSE values compared to the naïve LM benchmark, the structural model has high predictive power. The negative values of PLS-SEM – LM RMSE for every Task Performance (PT) indicator in Table 4.14 were implying that none of the PLS-SEM RMSE values were higher than the LM RMSE values. Hence, Job Performance (PJ) demonstrated high predictive power.

4.10.5 Hypothesis Testing: Significance of Directs Relationships

Bootstrapping procedure with 5000 resamples (Hair et al., 2014) was utilized to examine relationships between independent variables (i.e. Spirituality at Work and HRM practices), mediating variable (Employee Engagement), and dependent variable (Job Performance). The first part of hypotheses testing reported on the analysis performed on the relationship between Spirituality at Work, four dimensions of HRM practices (i.e. Career Development, Employee Participation, Performance Appraisal, and Training and Development), and Employee Engagement with Job Performance. A PLS structural model illustrating these relationships was described as in Figure 4.5.



Note: SW = Spirituality at Work, HRC = Career Development, HRP = Employee Participation, HRA = Performance Appraisal, HRT = Training and Development, EE = Employee Engagement, PJ = Job Performance.

Figure 4.5
Structural Model

Figure 4.5 depicted the studied constructs (i.e. SW, HRC, HRP, HRA, HRT, EE, and PJ) and their path relationships (i.e. hypotheses). Job Performance (PJ) was an endogenous construct (dependent variable), while Spirituality at Work (SW), Career Development (HRC), Employee Participation (HRP), Performance Appraisal (HRA), Training and Development (HRT) and Employee Engagement (EE) were exogenous constructs (predictor variables). EE also worked as a mediator in relationships between

SW and PJ, HRC and PJ, HRP and PJ, HRA and PJ, as well as HRT and PJ. Meanwhile, the arrows in the model represented relationships between constructs with path coefficients, β (outside brackets) and empirical *t*-values (inside brackets). The complete results of significance testing for this structural model were compiled as in Table 4.15. The bootstrapping output derived from PLS can refer in Appendix 22.

Table 4.15
Results of Significance Testing (Direct Relationships)

Relationships	β	Std. Dev	*t*-value	CI (BC)		Decision
				LL	UL	
H1: SW → PJ	.292	.036	8.179***	.236	.353	Supported
H2.1: HRC → PJ	.076	.034	2.256**	.023	.134	Supported
H2.2: HRP → PJ	.002	.029	.082	-.046	.050	Not Supported
H2.3: HRA → PJ	.086	.036	2.373**	.029	.148	Supported
H2.4: HRT → PJ	.204	.028	7.342***	.156	.248	Supported
H5: EE → PJ	.349	.029	12.028***	.298	.393	Supported
H3: SW → EE	.280	.040	7.002***	.216	.346	Supported
H4.1: HRC → EE	-.013	.033	.379	-.071	.039	Not Supported
H4.2: HRP → EE	.108	.035	3.065**	.049	.166	Supported
H4.3: HRA → EE	-.052	.038	1.369	-.120	.007	Not Supported
H4.4: HRT → EE	.103	.032	3.230**	.048	.154	Supported

Note: One-tailed test. *p<0.05, **p<0.01, ***p<0.001, BC = Bias corrected, N = 987

Spirituality at Work (SW). The results as demonstrated in Table 4.15, revealed that Spirituality at Work had significant and positive relationships with both Job Performance (β = 0.292, t = 8.719, p < 0.001, LL = 0.236, UL = 0.353) and Employee Engagement (β = 0.280, t = 7.002, p < 0.001, LL = 0.216, UL = 0.346). Therefore, H1 and H3 were supported. These findings interpreted that as the level of Spirituality at Work increased, the level of Job Performance and Employee Engagement also increased.

Career Development (HRC). The significance testing results also showed that Career Development had a significant and positive relationship with Job Performance (β = 0.076, t = 2.256, p = 0.012, LL = 0.023, UL = 0.134). Hence, H2.1 was supported and this

relationship meant when the level of Career Development increased, the level of Job Performance would also increase. However, there was a non-significant relationship between Career Development and Employee Engagement ($\beta = 0.013$, $t = 0.379$, $p = 0.352$, LL = -0.071, UL = 0.039). In other words, the level of Career Development did not affect the level of Employee Engagement among respondents of this study. Thus, H4.1 was not supported.

Employee Participation (HRP). Further, there was also a non-significant relationship between Employee Participation and Job Performance ($\beta = 0.002$, $t = 0.082$, $p = 0.467$, LL = -0.046, UL = 0.050). Hence, H2.2 was not supported. This finding meant that Employee Participation did not influenced the Job Performance of respondents of this study. On the contrary, there was a significant and positive relationship between Employee Participation and Employee Engagement ($\beta = 0.108$, $t = 3.065$, $p = 0.001$, LL = 0.049, UL = 0.166). Thus, H4.2 was supported, and it was evident that the higher the level of Employee Participation, the higher the level of Employee Engagement or vice versa.

Performance Appraisal (HRA). Similar to Career Development, Performance Appraisal showed a significant and positive relationship with Job Performance ($\beta = 0.086$, $t = 2.373$, $p = 0.009$, LL = 0.029, UL = 0.148), but non-significant relationship with Employee Engagement ($\beta = -0.052$, $t = 1.369$, $p = 0.086$, LL = -0.120, UL = 0.007). Hence, H2.3 was supported, but H4.3 was not. These relationships meant that Performance Appraisal only influenced Job Performance, but not Employee Engagement. When the level of Performance Appraisal increased, the level of Job Performance would also increase. On

the other hand, the level of Performance Appraisal did not affect the level of Employee Engagement.

Training and Development (HRT). In line with Spirituality at Work, Training and Development showed significant and positive relationships with both Job Performance (β = 0.204, t = 7.342, p < 0.001, LL = 0.156, UL = 0.248) and Employee Engagement (β = 0.103, t = 3.230, p = 0.001, LL = 0.048, UL = 0.154). Therefore, H2.4 and H4.4 were supported. These findings interpreted that as the level of Training and Development increased, the level of Job Performance and Employee Engagement also increased.

Employee Engagement (EE). Lastly, Employee Engagement demonstrated a significant and positive relationship with Job Performance (β = 0.349, t = 12.028, p < 0.001, LL = 0.298, UL = 0.393) and H5 was supported. Hence, it was evident that when the level of Employee Engagement increased, the level of Job Performance also increased or the other way around.

4.10.6 Hypothesis Testing: Significance of Indirect Relationships

The second part then reported on the indirect relationships between Spirituality at Work (SW), and HRM practices (i.e. career development, employee participation, performance appraisal, and training and development) with Job Performance (PJ) through Employee Engagement (EE). There are several approaches to test indirect relationship (mediation effect) which are including Baron and Kenny's causal procedural method, Sobel Test, and bootstrapping the indirect effect (Ramayah et al., 2018). This study employed the bootstrapping the indirect effect approach as developed by Preacher and Hayes (2004) due to several reasons as the following:

1. Baron and Kenny's causal procedure method has been criticised as having very low statistical power and the multiple steps involved are causing false conclusion that there is mediation effect when actually there is no mediation effect (Rungtusanatham et al., 2014).
2. Sobel test is not appropriate to be used because the distributional assumptions do not hold for the indirect effect that will yield lower statistical power than other alternatives especially in a study with non-normal data. While, this study possesses non-normal data distribution.

Therefore, indirect effects of Employee Engagement on relationships between Spirituality at Work and Job Performance, as well as HRM practices (i.e. Career Development, Employee Participation, Performance Appraisal, and Training and Development) and Job Performance were presented as in Table 4.16. The bootstrapping output derived from PLS can refer in Appendix 23.

Table 4.16
Results of Significance Testing (Indirect Relationships)

Relationships	β	Std. Dev	*t*-value	CI (BC)		Decision
				LL	UL	
H6: SW → EE → PJ	.124	.020	6.165***	.087	.165	Supported
H7.1: HRC → EE → PJ	-.007	.015	.461	-.035	.022	Not Supported
H7.2: HRP → EE → PJ	.049	.016	3.182**	.019	.079	Supported
H7.3: HRA → EE → PJ	-.021	.017	1.255	-.058	.009	Not Supported
H7.4: HRT → EE → PJ	.045	.014	3.264**	.018	.072	Supported

Note: Two-tailed test. *p<0.05, **p<0.01, ***p<0.001, BC = Bias corrected

As a result, Table 4.16 revealed that two mediation hypotheses were not supported which included H7.1: HRC → EE → PJ (β = -0.007, t = 0.461, p = 0.644, LL = -0.035, UL = 0.022) and H7.3: HRA → EE → PJ (β = -0.021, t = 1.255, p = 0.210, LL = -0.058, UL = 0.009). Hence, it was evident that Employee Engagement only mediated

relationships between Spiritual at Work and Job Performance ($\beta = 0.124$, $t = 0.6.165$, $p = 0.000$, LL =0.087, UL = 0.165), Employee Participation and Job Performance ($\beta = 0.049$, $t = 3.182$, $p = 0.001$, LL = 0.019, UL = 0.079), as well as Training and Development and Job Performance ($\beta = 0.045$, $t = 3.264$, $p = 0.001$, LL = 0.018, UL = 0.072). On that account, H6, H7.2, and H7.4 were supported.

In addition, researchers are advised to conclude mediation results by identifying types of mediation (Hair et al., 2017; Nitzl, Roldan, & Cepeda, 2016). According to Mackinnon, Fairchild, and Fritz (2007) there are three types of mediation, namely, full mediation, competitive partial mediation, and complementary partial mediation (see Figure 4.6).

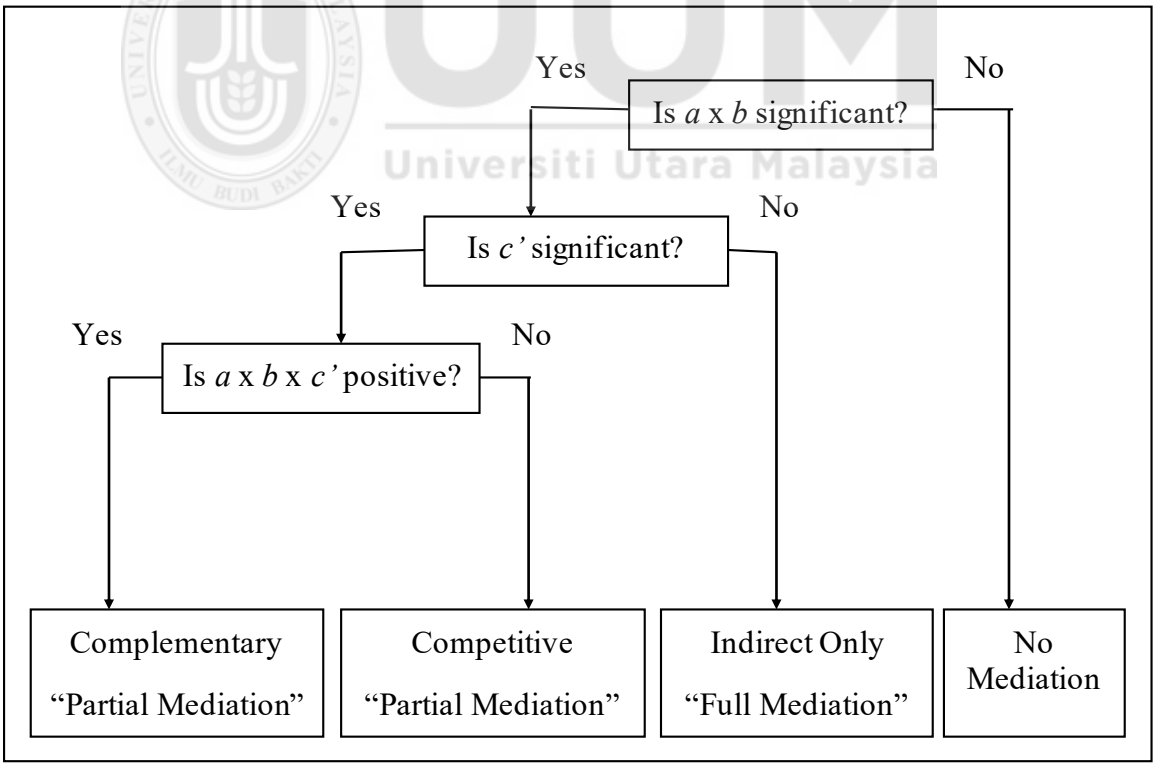


Figure 4.6
Types of Mediation obtained from Zhao, Lynch Jr, and Chen (2010)

As depicted in Figure 4.6, full mediation occurs when the indirect effect is significant, but the direct effect is not significant (Zhao et al., 2010). This description was matched with the mediation effect of Employee Engagement on the relationship between Employee Participation and Job Performance (H7.2: HRP → EE → PJ). In this study, it was revealed that direct relationship between Employee Participation and Job Performance (H2.2: HRP → PJ) was not significant at $t < 1.65$ and $p > 0.05$. However, the indirect relationship between Employee Participation and Job Performance (H7.2: HRP → EE → PJ) was significant at $t = 3.182$ and $p = 0.001$.

In contrast, competitive partial mediation demonstrates both indirect and direct effects are significant, but in opposite directions (one is positive while the other one is negative) (Zhao et al., 2010). Nevertheless, none of the indirect relationship tested in this study matched with this mediation characteristic.

Finally, complementary partial mediation occurs when both indirect and direct effects are significant and in the same direction (either positive or negative) (Zhao et al., 2010). This description was perfectly matched with the remaining two mediation effects tested in this study, i.e. H6 and H7.4. For relationship between Spirituality at Work and Job Performance, direct effect SW → PJ ($\beta = 0.292, p < 0.001$) and indirect effect SW → EE → PJ ($\beta = 0.124, p < 0.001$) were both significant and positive. Therefore, H6: SW → EE → PJ was categorized as complementary partial mediation. In the same vein, both direct and indirect relationships between Training and Development with Job Performance showed significant and positive at HRT → PJ ($\beta = 0.204, p < 0.001$) and HRT → EE → PJ ($\beta = 0.045, p = 0.001$). Thus, H7.4 was also recognized as

complementary partial mediation. All types of mediation identified in this study was summarized in Table 4.17.

Table 4.17
Summary of Mediation Types

Direct Effects			Indirect Effects			Types of Mediation
Relationships	***β***	***p*-value**	**Relationships**	***β***	***p*-value**	
SW → PJ	.292	<.001	SW → EE → PJ	.124	<.001	Complementary Partial
HRP → PJ	.002	.467	HRP → EE → PJ	.049	.001	Full
HRT → PJ	.204	<.001	HRT → EE → PJ	.045	.001	Complementary Partial

4.11 Summary of Hypotheses Testing

The following Table 4.18 shows summary of the findings from hypotheses testing between independent variables (spirituality at work and HRM practices), mediating variable (employee engagement) and dependent variable (job performance that comprised of task and contextual performance). The researcher defines partially supported when the supported hypotheses are more than or equal with not supported hypotheses.

Table 4.18
Summary of Hypotheses Testing

	Hypotheses	Results
H1	There is significant and positive relationship between spirituality at work on job performance (task performance and contextual performance).	Supported
H2	There is significant and positive relationship between HRM practices (career development, employee participation, performance appraisal, and training and development) on job performance (task performance and contextual performance).	Partially Supported
H2.1	There is significant and positive relationship between career development on job performance (task performance and contextual performance).	Supported
H2.2	There is significant and positive relationship between employee participation on job performance (task performance and contextual performance).	Not Supported
H2.3	There is significant and positive relationship between performance appraisal on job performance (task performance and contextual performance).	Supported

	H2.4	There is significant and positive relationship between training and development on job performance (task performance and contextual performance).	Supported
H3		There is significant and positive relationship between spirituality at work on employee engagement.	Supported
H4		There is significant and positive relationship between HRM practices (career development, employee participation, performance appraisal, and training and development) on employee engagement.	Partially Supported
	H4.1	There is significant and positive relationship between career development on employee engagement.	Not Supported
	H4.2	There is significant and positive relationship between employee participation on employee engagement.	Supported
	H4.3	There is significant and positive relationship between performance appraisal on employee engagement.	Not Supported
	H4.4	There is significant and positive relationship between training and development on employee engagement.	Supported
H5		There is significant and positive relationship between employee engagement on job performance (task performance and contextual performance).	Supported
H6		Employee engagement mediates the relationship between spirituality at work and job performance (task performance and contextual performance).	Supported
H7		Employee engagement mediates the relationship between HRM practices (career development, employee participation, performance appraisal, and training and development) and job performance (task performance and contextual performance).	Partially Supported
	H7.1	Employee engagement mediates the relationship between career development and job performance (task performance and contextual performance).	Not Supported
	H7.2	Employee engagement mediates the relationship between employee participation and job performance (task performance and contextual performance).	Supported
	H7.3	Employee engagement mediates the relationship between performance appraisal and job performance (task performance and contextual performance).	Not Supported
	H7.4	Employee engagement mediates the relationship between training and development and job performance (task performance and contextual performance).	Supported

4.12 Summary of the Chapter

This chapter presents the results of analyses being conducted for this study. A high response rate of 93.24% received for the survey questionnaires suggested that non-response bias was not a critical problem in this study. Data screening stage ensure that the data set used in this study was free of missing value, suspicious responses and extreme outliers. Then, the measurement model analysis confirmed that all constructs under study were valid and reliable. The conducted full collinearity test also revealed that the structural model was not subjected to common method variance.

Besides that, structural model's explanatory power based on key target construct (Job Performance) were substantial at $R^2 = 0.302$. Moreover, based on PLSpredict statistics; $Q^2_{predict} > 0$ and RMSE (PLS-SEM < LM), the structural model indicated a high predictive power. Further, findings from significance testing revealed that most relationships tested in the structural model were statistically significant. Only three out of eleven direct relationships were not significant; H2.2: relationship between Employee Participation and Job Performance, H4.1: relationship between Career Development and Employee Engagement, and H4.3: relationship between Performance Appraisal and Employee Engagement.

Lastly, Employee Engagement demonstrated complementary partial mediation on relationship between Spirituality at Work and Job Performance, as well as Training and Development and Job Performance. On the other hand, there was a full mediation effect of Employee Engagement on relationship between Employee Participation and Job Performance. The discussions of the findings were then presented in the following chapter.

CHAPTER 5

DISCUSSIONS AND CONCLUSION

5.1 Introduction

In this chapter, findings from the analyses performed in Chapter 4 will be discussed. Attempts are made to discuss the results of hypothesis testing based on the research objectives along with the implications of the study. Subsequently, limitations of this study and suggestions for future research are also included in the chapter. The chapter end with a conclusion of the study.

5.2 Recapitulation of the Study Findings

The purpose of this chapter is to discuss the findings presented in the earlier chapter based on the research questions and hypotheses developed for this study. In this study, seven main research questions have been identified as presented in Chapter 1 as the following:

1) Does spirituality at work influence job performance (task performance and contextual performance)?

2) Do HRM practices (career development, employee participation, performance appraisal and training and development) influence job performance (task performance and contextual performance)?

3) Does spirituality at work influence employee engagement?

4) Do HRM practices (career development, employee participation, performance appraisal and training and development) influence employee engagement?

5) Does employee engagement influence job performance (task performance and contextual performance)?

6) Does employee engagement mediate the relationship between spirituality at work and job performance (task performance and contextual performance)?

7) Does employee engagement mediate the relationship between HRM practices (career development, employee participation, performance appraisal, and training and development) and job performance (task performance and contextual performance)?

Methodologically, for the purpose of the study, a cross sectional survey was conducted, and data were gathered from two sources: nurses and their immediate supervisor (sister) in ten general hospitals throughout Malaysia. Nurses evaluated the independent variables (spirituality at work and HRM practices) and mediating variable (employee engagement), while immediate supervisor (sister) evaluated their staff nurses' job performance. A total of 1,125 matched pair of questionnaires were distributed but, only 1,078 staff nurses and 1087 sister returned the questionnaires. Nevertheless, only 1,049 matched pair of questionnaires were found to be usable, which yielding 93.24% of response rate. Data cleaning and description of respondents' profiles were performed. During data cleaning process, a total of 62 cases with D^2 value greater than $x^2 = 12.592$

($df = 6$; $p < 0.05$) were removed from the data set and the remaining 987 cases were used in subsequent analysis.

The findings of this study indicated that four hypotheses are fully supported, and three hypotheses are partially supported. The bootstrapping output derived from PLS revealed that hypothesis 1 was fully supported; Spirituality at Work had significant and positive relationship on Job Performance. Further, results from bootstrapping showed that hypotheses 2 were partially supported. Specifically, hypotheses 2 were partially supported because three out of four sub-hypotheses relating to the relationship between HRM practices on Job Performance were supported. Hypothesis 3 was fully supported because Spirituality at Work was found to have significant and positive relationship on Employee Engagement. The results from bootstrapping output for hypotheses 4 showed partially supported because only two out of four sub-hypotheses were supported. Further, hypothesis 5 was fully supported because the Employee Engagement was found to be significant and positive relationship on Job Performance.

To examine the indirect relationship, bootstrapping the indirect effect approach was employed. The bootstrapping output revealed that hypothesis 6 was fully supported because employee engagement mediates the relationship between Spirituality at Work and Job Performance. Finally, hypotheses 7 were partially supported. Specifically, sub-hypotheses 7 were partially supported because Employee Engagement mediated only two of the four relationships between HRM practices and Job Performance.

5.3 Discussions on Findings

The following section discusses the findings of the study. It starts with a discussion of the results of Spirituality at Work (SW), four dimensions of HRM practices (career development (HRC), employee participation (HRP), performance appraisal (HRA), and training and development (HRT) on job performance (PJ). Then, the role of employee engagement as mediator is presented and discussed.

5.3.1 The influence of Spirituality at Work on Job Performance (task performance and contextual performance).

The Spirituality at Work construct in this study refers to an employee who viewed themselves as spiritual beings whose souls need nourishment at work, experienced a sense of purpose and meaning in their work and feel connected to one another that takes place in the context of community (Ashmos & Duchon, 2000; Milliman et al., 2003; Mitroff & Denton, 1999). This construct comprised of three dimensions: inner life, meaningful work and sense of community. To answer the first research question of the study, bootstrapping procedure was conducted, and the results as reported in Table 4.15 are used to identify the influence of Spirituality at Work and Job Performance (task and contextual performance).

The bootstrapping output derived from PLS present in Table 4.15 showed the relationship between Spirituality at Work and Job performance. As expected, Spirituality at Work was found to had significant and positive influenced on nurses' job performance. This finding interpreted that as the level of Spirituality at Work increased, the level of Job Performance also increased.

Das and Mukherjee (2018) argued that spirituality at workplace helps to motivate employees performing their job with full commitment and honesty which in turns increase in employee job performance. In the same line, Sintaasih et al. (2018) conducted a study among 363 administrators of LPD in Bali province and found that spirituality at work had a positive and significant effect on job performance of employees. In addition, recent study by Mousa (2020) in Abu Dhabi University reported that spirituality at work is significant and positive relationship with employee job performance.

Devendhiran and Wesley (2017) argued that spirituality at work is not about promoting a particular religion or belief in work but instead creating a culture that embraces the person in the workplace and acknowledge that employees benefit from being able to satisfy their spiritual needs at workplace. Ashmos and Duchon (2000) claimed that when employees have the chance to express their personal values, this could give advantages results to work unit as well as organization. It is because employees who perceived a strong association between their inner life and their working environment (Charoensukmongkol et al., 2015), manage to foster the meaningfulness of work (Do, 2018) and have a strong sense of community and strong purposeful organization goals (Duchon & Plowman, 2005) are more likely to perform in their job. At the same time, Jena (2020) argued that spirituality boost employee job performance by promoting cognitive and emotional association between employees and their organization and also enhance social interaction among employees which in turns creating devotion and a sense of fulfillment that leads to high performing employee. One possible reason could be that nurses in public hospitals who are able to express their inner self, experience meaningful and purposeful work, and they feel valued and connected with each other while

performing their day-to-day tasks at workplace tend to have high intrinsic motivation that can create a sense of achievement, satisfaction and responsibility which then lead to higher job performance. Under these circumstances, nurses perceived their work as motivating, satisfying and meaningful despite having heavy workload.

5.3.2 The influence of HRM practices (Career Development, Employee Participation, Performance Appraisal, and Training and Development) on Job Performance (task performance and contextual performance).

The construct of HRM practices comprised of four dimensions: career development (HRC), employee participation (HRP), performance appraisal (HRA) and training and development (HRT). In order to answer the second research question of the study, bootstrapping procedures were conducted, and the results as reported in Table 4.15 were used to identify the influence of HRM practices on Job Performance (task and contextual performance).

The bootstrapping output present in Table 4.15 showed partially supported on the relationship between HRM practices and Job Performance. Several past empirical studies supported that HRM practices were predictors of job performance (Asiamah et al., 2019; Ismail et al., 2019; Khan et al., 2019; Vivek, 2019; Otoo & Mishra, 2018; Thevanes & Dirojan, 2018; Khan et al., 2017; Mohamad & Yahya, 2017; Jouda et al., 2016; Awan & Saeed, 2014; Khalid et al., 2014; Aarabi et al., 2013; Ojokuku, 2013; Saeed et al., 2013b; Tiwari, 2011).

Further, of the four dimensions of HRM practices, Career Development was found to have a significant and positive relationship on Job Performance. This indicated

that when the level of Career Development increased, the level of Job Performance would also increase. The finding appears to be parallel with previous studies that found a significant and positive relationship between Career Development on Job Performance (Otoo & Mishra, 2018; Mohamad & Yahya, 2017; Saeed et al., 2013b; Tiwari, 2011). Career development refers to an ongoing organized and formalized effort that focused on developing and enriching more capable employees (Gomez-Mejia et al., 2010). Mohamad and Yahya (2017) argued that support from organization in terms of proper practices of employee's career development practice is considered as an important as it contributes to skills, knowledge, ability, attitude and motivation that able to enhance job performance of employees.

Therefore, when employer provides clear career development practice for employees, employee will be satisfied and feel valued from their organization. In healthcare context, career development will help nurses manage their learning on improving nursing practice, customer care and education as well as their career growth in nursing profession. Hence, nurses who feel that they have been valued and well supported by their organization through career development practice tend to repay to the organization by performing better.

Besides, Performance Appraisal practice was found to have significant and positive relationship on Job Performance. This relationship meant that when the level of Performance Appraisal increased, the level of Job Performance would also increase. This finding is consistent with past studies that found a positive significant relationship between performance appraisal practice and job performance (Ismail et al., 2019; Khan et

al., 2019; Vivek, 2019; Khan et al., 2017; Jouda et al., 2016; Khalid et al., 2014; Ojokuku, 2013). According to Ismail et al. (2019) performance appraisal ia an important tool used by organization to keep their employees motivated and creating more efficient employees. Therefore, when employee received good performance appraisal on particular goals and objectives, it can motivate them to perform well and boost good behavior at workplace (Rodjam et al., 2020). Hence, management should provide fairness and accuracy in performance appraisal process because it can lead to high level of employee appraisal satisfaction and motivation to improve performance (Setiawati & Ariani, 2020). In healthcare context, performance appraisal is essential because it keeps health workers updated on their performance which can help them in identifying areas of deficiency towards enhancing the quality of service delivered to patient (Adepoju, Opafunso, & Lawal, 2017). Therefore, nurses who experienced satisfaction with performance appraisal process provided by their immediate supervisor are more likely strive to reciprocate by being motivated and committed in achieving higher performance.

In addition, Training and Development was found to be significantly and positively influenced Job Performance. The results appear to be parallel with study by Nasurdin et al. (2020), Asiamah et al. (2019), Ismail et al. (2019), Khan et al. (2019), Otoo and Mishra (2018), Thevanes and Dirojan (2018), Jouda et al. (2016) and Arevshatian et al. (2014). According to Thevnes and Dirojan (2018), training and development enhance employee job performance by improving employees' competencies as well as attitudes and behavior. In healthcare setting, Asiamah et al. (2019) and Arevshatian et al. (2014) stated that training and development practice is considered as important since it helps the health services keep updated with medical advancements,

new technologies and improve skills related to patient care which directly effect on quality of care and safety.

Therefore, training and development practice is considered as an important tool to gain valuable support and to be updated with new knowledge, skills and abilities for performing more challenging tasks, which directly enhance employee performance. In healthcare setting, nurses faced many challenging tasks, hence they need to keep update their technical skills and knowledge in order to give better services. Nurses who feel satisfied with availability of training practices provided by the organization will feel that they are being given support to enhance their skills and knowledge, which indirectly enhance their job performance.

In this study findings, it could be interpreted that positive perception via nurse's satisfaction on career development, performance appraisal and training and development provided by organization will increase the nurses job performance. Among possible reasons could be due to the nature of nurse's profession. They need support from the organization to improve their knowledge, skills and technical abilities to perform in their job since their daily tasks involves with wide range of activities (Greenslade & Jimmiesion, 2007). For example, career development practice is necessary for nurses to build and developed their personal and skill development, performance appraisal practice is necessary to keep nurses update with their work performance, and training and development practice is necessary to keep nurses' skills, abilities and knowledge up to date with medical advancements and new technologies. When nurses satisfied and perceived that their organization has provided enough resources and support via HRM

practices, nurses tend to repay by exhibit positive behaviors through higher job performance.

Results also revealed that there is no significant relationship between Employee Participation on Job Performance. The results found to be parallel with study by Kulachai et al. (2018), Khalid et. (2014) and Aleem et al. (2012). One possible reason could be due to the nature of nurses' job. In healthcare setting, nurse requires a lot of human interaction and need to participate with others in order to perform their tasks (Beh & Loo, 2012) which include participation in teams' decision or activities as well as attendance during meetings and rounds. Nurses need to voice their opinion when involve in decision making process on matters affecting their duties, so that they can effectively carry out their job efficiently. The insignificant result of participation on nurses' job performance could be due to nurses perceived that their participation in decision making process does not give any changes towards their tasks since the highest decisions is in the hands of their superior, hence they only followed what are being instructed by management. Lack of participation in decision making or less control over their tasks will make nurses lose their motivation due to frustration and dissatisfaction which indirectly will reduce their job performance and quality of patient care.

5.3.3 The influence of Spirituality at Work on Employee Engagement.

To answer the third research question of the study, bootstrapping procedure was conducted, and the findings demonstrated in Table 4.15 was used to identify the influenced of Spirituality at Work on Employee Engagement. In this study, employee engagement is viewed as a positive, fulfilling, work related state of mind that is characterized by vigor, dedication, and absorption (Schaufeli et al., 2002).

The bootstrapping output derived from PLS reported in Table 4.15 revealed supported on the relationship between Spirituality at Work and Employee Engagement. As expected, Spirituality at Work was found to influence Employee Engagement. The result implies that nurses who are satisfied with the needs of spirituality at work values tend to be more engaged at workplace. The finding appears to be in line with previous findings such as (Margaretha et al., 2021; Rashidin et al., 2019; Lianto et al., 2018; Mahipalan & Sheena, 2018; Devi, 2016; Pradhan & Jena, 2016; Roof, 2015). For example, study by Lianto et al. (2018) among 100 employees in West Kalimantan found that spirituality at work (inner life, meaningful work and sense of community) have significant and positive influence on employee engagement. Likewise, a study conducted among 353 professional service consultants found significant influenced of spirituality at work (inner life, meaningful work, sense of community and alignment of values) on employee engagement (Mahipalan & Sheena, 2018). Recent study done by Margaretha et al. (2021) found significant and positive relationship between spirituality at work on employee engagement.

In this study findings, among possible reason to explain the significant relationship is that when nurses experience spirituality at work, they are more likely to be happy, more engaged, and more willing to bring their whole self to work (Duchon & Plowman, 2005; Jurkiewicz & Gicalone, 2004). Nursing profession was generally seen as stressful occupation (Mohd Noor, 2019), therefore the innate source of motivation that could help nurses in handling stress is spirituality at work because spirituality can gather intrinsic motivation by managing nurse behavior at workplace (Amin et al., 2021; James et al., 2011) especially when dealing with high pressure at workplace (Fitriasari, 2020).

Indeed, studies by Kouhdasht et al. (2019) and Reutter and Bigatti (2014) suggested that higher spirituality seems to be associated with lower perceived occupational stress level and better psychological health. In healthcare context, when nurses have achieved their intrinsic work motivation by experiencing spirituality at work in their workplace, they become more engaged in their work. Milliman et al. (2018) argued that spirituality can provide an individual to experience a deeper level of intrinsic work motivation and engagement. Hence, based on finding, it shows that nurses in public hospitals should experience intrinsic motivation of spirituality at work values (inner life, meaningful work and sense of community) in order to engage with their jobs.

5.3.4 The influence of HRM practices (Career Development, Employee Participation, Performance Appraisal, and Training and Development) on Employee Engagement.

The HRM practices construct comprised of four dimensions: Career Development (HRC), Employee Participation (HRP), Performance Appraisal (HRA) and Training and Development (HRT). In order to answer the fourth research question of the study, bootstrapping procedure of 5000 resample were conducted, and the findings demonstrated in Table 4.15 were used to identify the influence of HRM practices dimensions, namely Career Development, Employee Participation, Performance Appraisal and Training and Development on Employee Engagement. Past studies posited that certain HRM practices in organization have significant influence on employee engagement (Albrecht et al., 2015; Guest, 2014; Jose & Mampilly, 2012).

The bootstrapping output derived from PLS reported in Table 4.15 revealed partially supported on the relationship between HRM practices and Employee

Engagement. Specifically, only two dimensions of HRM practices, namely, Employee Participation (HRP) and Training and Development (HRT) were found to had significant and positive influenced on Employee Engagement. The results imply that nurses who perceived effective employee participation and training and development are more likely to engage. In other words, nurses who perceived that their hospitals allow them to have input about their work and valued their input would display greater engagement. Likewise, nurses who perceived that their hospitals provide adequate opportunities for training and development more likely to exhibit higher engagement. The finding appears to be parallel with previous studies that found employee participation and training and development were predictors to employee engagement (Ahmed et al., 2020; Vuong & Sid, 2020; Aktar & Pangil, 2018; Shantz et al., 2016; Arevshatian et al., 2014; Suan & Nasurdin, 2014; Azeem et al., 2013; Hinkel & Allen, 2013).

In this study findings, among possible reason to explain the significant relationship is because nursing profession can be categorized as knowledge-based job because they need specific skills to perform their tasks and these skills can be considered as central to the operation of hospitals (Shantz et al., 2016). Hence, since nursing profession in Malaysia public hospitals faces many challenges, such as increasing in noncommunicable such as diseases from poor lifestyle (Lau, November 26, 2017) and communicable disease such as pandemic of COVID-19 (Roslan et al., 2019), nurses need skills, knowledge and technical abilities to perform their job. When organization can provide resources to their nurses through training and development program, nurses skills and knowledge could be upgraded and they will feel that they have more confidence to perform the jobs in better way, which in turn increase the level of employee engagement.

Further, in healthcare setting, nurses require a lot of human interaction and need to participate with others in order to perform their tasks (Beh & Loo, 2012). Nurses' participation is necessary when involve in decision making process on matters affecting their duties, so that nurses can effectively carry it out their tasks. For example, during clinical decision making, the nurses will gather patient information, evaluate the information, and make judgements that result in the provision of patient care. Here, nurses are asked to contribute thoughts and suggestions because they have direct contact with the patient as well as knows more about the patient conditions. In these situations, it makes sense that nurses in public hospitals are reciprocal to each other with hospital management since hospital management had put effort in allowing nurses to have input about their work, so that, nurses will feel valued and obligated to give something in return to their organization such as showing high level of employee engagement as repayment. Hence, based on finding, it provides insight for management of public hospitals that nurses level of engagement will depend on their reciprocal setting in which organization implement proper HRM practices for nurses, then nurses feel obligated towards their organization by showing more dedication and enthusiasm in their job.

However, results also revealed that there is non-significant relationship between two dimensions of HRM practices, namely, Career Development and Performance Appraisal on Employee Engagement. The results are in line with study by Vuong and Sid (2020) in Vietnamese banking industry where career development and performance appraisal were found to be insignificant influence on employee engagement. One plausible explanation on insignificant result of career development and employee engagement could be attributable to the demographic factor of the nurse's respondents,

who were mostly at the age of 31.98. These quite junior nurses most likely think that the basic trainings they received are considered sufficient to perform their required tasks and they may not want to add more commitment with their demanding nursing job. It happens because they probably did not have clear picture about career paths within the hospital and they think that to further professional courses such as post-basic training, it may add up more commitment and additional responsibility which they are not prepare for. This suggests that if employees are not given enough information and support about their career path by the organization, they are more likely to be less engage with their job.

Meanwhile, for the reason why performance appraisal process does not influence engagement among nurses in this study could be due to the nature of performance appraisal attribute. Fairness perception of employees is a determinant of the success of the performance appraisal system and its acceptance or rejection rely on the perceptions held (Kim & Holzer, 2016). Thus, fairness perception is one of the issues that employees react to in the performance appraisal system. However, employees' performance appraisal dissatisfaction concerning perceived fairness and effectiveness is prominent (Shrivastava & Purang, 2011). Issues such as, for instance, biased performance assessments generate challenges for ethical decision-making in organizations (Maas & Torres-González, 2011), and in most cases gives rise to employee dissatisfaction with the appraisal process (Kim & Rubianty, 2011). This suggests that if employees are not satisfied with performance appraisal process offered by their immediate supervisor and not receiving any feedback on their performance for improvement, they are more likely to be less engage. As such, nurses who experienced dissatisfaction will less committed and no bearing on their level of engagement at work.

5.3.5 The influence of Employee Engagement on Job Performance (task performance and contextual performance).

In order to answer the fifth research question of the study, bootstrapping procedure was conducted, and the results as presented in Table 4.15 was used to identify the influenced of Employee Engagement on Job Performance (task performance and contextual performance).

The bootstrapping output derived from PLS in Table 4.15 shows supported on the relationship between Employee Engagement and Job Performance. Specifically, findings of the study show significant and positive relationship between Employee Engagement on Job Performance. Therefore, this implies that when nurses experience high engagement, their job performance will increase. In other words, this finding proves that an engaged employee performs more than those who are disengaged in organization. This result appears to be parallel with previous findings that employee engagement had positive and significant relationship with job performance (Ismail et al., 2019; Carter et al. 2016; Anitha, 2014; Shantz et al., 2013; Dalal et al., 2012; Rich et al. 2010), contextual performance (Shen & Jiang, 2019; George & Joseph, 2015; Rukkhum & Bartlett, 2012) and service performance (Menguc et al., 2013).

In this study findings, among possible reason to explain the significant relationship is because based on scientific study of human strength and optimal functioning, employee engagement has been regarded as the antithesis of burnout (Maslach et al., 2001) and is considered as an active psychological state that could generates positive emotions and increase motivation of employee to perform all work behavior (Parker & Griffin, 2011). The positive state of mind would lead employees to

feel enthusiasm, passion, energetic and active engagement with their work in organization (Gupta & Sharma, 2018), which lead to higher job performance. An engaged employee not only performs the duties that he/she assigned for but also willing to perform extra duties that is beyond their job description (Christian et al., 2011; Rich et al., 2010).

Likewise, when employees are more engaged in organization, job performance of employees also increase, and organizations could retain their skilled and experienced employees (Vuong & Sid, 2020). In healthcare context, studies have shown that nurses who are engaged in their work get higher rankings from their employers and perform in their in-role and extra-role performance (Bhatti et al., 2018; Demerouti et al., 2014). Since there is a shortage of nurses couples with high demanding from patients for quality of care, nurses' daily tasks have become more challenging. Therefore, it shows that nurses in public hospitals should involve with active psychological state of engagement in order to achieve higher in task performance and contextual performance.

5.3.6 The Mediation Influence of Employee Engagement on the Relationship between Spiritualty at Work and Job Performance

In order to answer the sixth research question of the study, bootstrapping the indirect approach was performed, and the findings are shown in Table 4.16 on the mediating role of Employee Engagement (EE) on the relationship between Spirituality at Work (SW) and Job Performance (PJ). A few studies have suggested that spirituality at work could motivate employee to engage with positive attitude such as employee engagement which in turn enhance employee job performance (Ahmad & Omar, 2015; Saks, 2011). The

results show that in general, employee engagement acts as a mediator in the relationship between Spirituality at Work and Job Performance of nurses.

Specifically, Employee Engagement was found to mediate (complementary partial mediation) the relationship between Spirituality at Work and Job Performance. This suggests that spirituality at work has both direct and an indirect effect on job performance through employee engagement. Nurses who experienced high spirituality at work would engage in greater job performance. This finding is in line with a study by Das and Mukherjee (2018). Their study among 170 employees from different department of ONGC Limited, Silchar found spirituality at work, namely, inner life, meaningful work and sense of community to be significant and positive predictor of job performance. Similarly, a study conducted by Sintaasih et al. (2018) among 363 administrators of LPD in Bali province demonstrated that spirituality at work had a positive and significant effect on job performance of employees.

. When employees experienced spirituality at work, it may encourage individual to seek their full potential and experienced greater sense of intrinsic motivation (Osman-Gani et al., 2013) which led to higher job performance. In the same line, Das and Mukherjee (2018) claimed that spirituality at work helps to motivate employees in carrying out their tasks efficiently. Tong (2018) also argued that when employees manage to foster the meaningfulness of work, they will engage in greater task performance as well as contextual performance. According to Do (2018), in healthcare context, highly cooperation between healthcare personnel especially in surgery or other treatments, leads employees to feel a positive sense of community, which in turns leads to greater job performance and commitment (Duchon & Plowman, 2005; Milliman et al., 1999).

In addition, spirituality at work can provide an individual to experience a deeper level of intrinsic work motivation and engagement (Milliman et al., 2018). An engaged employee leads to higher performance by generating positive emotions which in turns increase motivation and commitment to perform job tasks and responsibilities (Demerouti & Cropanzano, 2010; Guest, 2014; Parker & Griffin, 2010).

The findings also confirmed the Self-Determination theory by Ryan and Deci (2000) which postulates that intrinsic motivation (spirituality at work) could trigger nurses' attitude to be highly engaged in their work, and consequently increase their job performance. The key satisfaction of basic psychological needs for nurse is achieved through needs for competence (meaningful work), relatedness (sense of community), and autonomy (inner life). This means that spirituality at work enabled nurses to feel motivated and experienced the need satisfaction while performing their job, which in turn trigger their psychological states that could generate positive emotions to perform all work behavior. Since nurses have satisfied with what they are looking for, they would perform more in their job.

5.3.7 The Mediation Influence of Employee Engagement on the Relationship between HRM Practices and Job Performance

In order to answer the last research question of the study, bootstrapping the indirect effect approach was performed, and the findings are shown in Table 4.16 on the mediating role of employee engagement on the relationship between HRM practices and job performance (task performance and contextual performance). Alfes and Shantz (2011) suggested to incorporate employee engagement as mediating mechanism through which HRM practices influence individual performance. The results show that in general,

employee engagement acts as a mediator in the relationship between HRM practices and job performance of nurses.

Specifically, employee engagement was found to mediate the relationship between Employee Participation and Job Performance. This suggests that Employee Participation has only an indirect effect on Job Performance through Employee Engagement. In this study it shows that Employee Participation can only influence Job Performance by means of Employee Engagement and Employee Engagement is a must exist mechanism in this relationship. This finding is in line with studies conducted by Alghnimi et al. (2020) in manufacturing industry that found employee engagement mediates the relationship between employee participation and job performance.

This finding is in line with studies conducted by Aktar and Pangil (2018) and Hinkel and Allen (2013) that found employee participation is a significant predictor of employee engagement. Likewise, recent study by Vuong and Sid (2020) among 457 frontline employees in Vietnamese banking industry demonstrated a significant and positive relationship between employee participation and training and development with employee engagement. Moreover, previous studies also reported that employee engagement not only have significant and positive relationship with job performance (Ismail et al., 2019; Anitha, 2014; Shantz et al., 2013) but also with contextual performance (Shen & Jiang, 2019; George & Joseph, 2015; Rukkhum & Bartlett, 2012) and service performance (Menguc et al., 2013).

According to Kulachai et al. (2018), when employees have an opportunity to participate in decision making, they will feel that they are important person and part of

the organization. Meanwhile, in healthcare context, participation in decision making among nurses is relevant in generating employee engagement since they have to work together with doctors, other nurses and other health professions in order to accomplish the same outcome, which is to treat a patient (Shantz et al., 2016). Hinkel and Allen (2013) argued that by giving employee opportunity to participate in decision making leads to high level of employee engagement above and beyond coworker and supervisor satisfaction and also allowed employees to have a chance to experience a sense of accomplishment in the organization (Jabroun & Balakrishnan, 2000). An engaged employee can generate motivation, commitment, citizenship behavior, well-being as well as fostering high level of employee performance (Guest, 2014; Mone & London, 2010). It is because employee engagement is considered as an active psychological state that could generates positive emotions and increase motivation of employees to perform all work behavior (Parker & Griffin, 2011).

Besides, employee engagement was found to mediate (complementary partial mediation) the relationship between Training and Development and Job Performance. This suggests that Training and Development has both direct and indirect effect (through Employee Engagement) on Job Performance. Nurses who perceived that their organization has provided enough resources and support via training and development practice, would showing favorable behaviors through efficient task performance and contextual performance in their job.

The findings of this study are in line with empirical studies by Khan et al. (2019), Otoo and Mishra (2018), Thevanes and Dirojan (2018) and Khalid et al. (2014), that found training and development to be significant predictor of employee job performance.

In healthcare context, Asiamah et al. (2019) in their study among nurses found a significant and positive relationship between in service training and nursing performance. Thevanes and Dirojan (2018) and Jouda et al. (2016) argued that training and development can significantly improve organizational performance through enhancing employees' job performance. In addition, positive perception from employees about availability and satisfaction of training needs significantly and positively enhance employee engagement (Ahmed et al., 2020; Vuong & Sid, 2020; Aktar & Pangil, 2018). Vuong and Sid (2020) argued that an engaged employee would exhibit high job performance as well as willing to perform extra duties that is beyond their job description (Christian et al., 2011; Rich et al., 2010). According to Asiamah et al. (2019) and Arevshatian et al. (2014), in healthcare context, training and development practice among healthcare workers are important in order to keep them updates with new technologies and new methods and also improving their skills related to patients' care.

The findings also confirmed Social Exchange Theory by Blau (1964) which postulates that reciprocal obligation exists between two parties (employee and employer) in a relationship. In healthcare context, when nurses perceived that their organization has provided enough resources and support via HRM practices such as employee participation practice and training and development practice, nurses tend to reciprocate positively by showing favorable attitude in the form of employee engagement. An engaged nurse may feel obliged to express themselves in their role as repayment for the resources they received from their organization. They are emotionally attached to their organization and are highly involved in their work which indirectly enhance their job performance as well as willing to work extra miles beyond their job descriptions.

5.4 Implications of the Study

The results of this study have provided several theoretical implications and also some practical implications particularly for nurses who attempt to achieve high job performance in the healthcare industry.

5.4.1 Theoretical Contributions

This study revealed the mediating role of employee engagement. The findings of the study empirically support the theoretical relationships presented in the theoretical framework (refer Figure 2.1) and contributed to the body of knowledge on job performance of nurse's literature within healthcare context. Based on the results from measurement model, the dependent variable, job performance was reported to have two dimensions. Four sub-dimensions of task performance namely information support, coordination care, social support and technical care. Meanwhile, contextual performance comprised of four sub-dimensions, which were interpersonal support, job-task support, compliance and volunteering for additional duties. Specifically, the results of this study reveal that nurses were engaged in both task performance and contextual performance. This result is consistent with new nursing job performance scale developed by Greenslade and Jimmieson (2007) which was based on an established job performance model by Borman and Motowidlo (1993).

Further, previous researchers (Sharma & Dhar, 2016; Al-Homayan et al., 2013; Nabirye et al., 2011; Al-Ahmadi, 2009) measure performance of nurses using self-rating. Hence, this study used nursing job performance scale which incorporates task performance and contextual performance that focuses on supervisory rating.

Besides, this study confirmed the influence of spirituality at work, HRM practices, and employee engagement on job performance. Thus, the study has added further knowledge on the importance of spirituality at work, HRM practices, and employee engagement as predictors of job performance among nurses. In addition, the results of the study also provided an empirical support pertaining to the relationship between spirituality at work, employee engagement, and job performance based on Self Determination Theory (Deci & Ryan, 1985). Self Determination theory suggested that an individual who are high in spirituality at work can experienced greater intrinsic need satisfaction on the job and thus become highly engaged with their work which in turn lead to greater performance. The results of this study found that spirituality at work can act as intrinsic motivational to influence engagement which in turn improve job performance of nurses. In other words, the results of this study indicate that nurses who are high in spirituality at work are more likely to achieve higher job performance because they are more willing to engage with their work that create meaning and greater purpose in their life and lives of others.

Additionally, this study also supports the Social Exchange Theory (Blau, 1964), especially on the influence of HRM practices namely career development, employee participation, performance appraisal, training and development towards employee engagement and job performance. The social exchange theory suggested that nurses tend to reciprocate with positive attitude and behavior when they are provided with enough resources and support from organizations. HRM practices is regarded as one form of resources derived from the organization that can assist organizational members to achieve their work goals, reduce their job demands and their associated physiological and

psychological costs and stimulate their personal growth, learning and development (Salanova et al, 2005). Thus, efficient resources can energize the employees, and hence, they will respond with high level of engagement (Saks, 2019) which in turn improves their job performance. The results from the study confirmed that nurse's perception on organization's HRM practices (career development, employee participation, performance appraisal, training and development) could motivate them to become more engage which in turn improve their job performance.

This study further added knowledge of the mediating role of employee engagement especially on the relationship between spirituality at work, HRM practices and job performance. It is because only a few of previous researchers such as Alfes et al. (2013b), Alfes and Shantz (2011) and Saks (2011) have mentioned about mediating role of employee engagement. Hence, by indicating the presence of significant direct and indirect effect of spirituality at work, HRM practices and job performance (task performance and contextual performance) through the mechanism of employee engagement, this study provides empirical evidence on mediating role of employee engagement.

Finally, most of the earlier studies on spirituality at work, HRM practices and employee engagement towards job performance were carried out in different sector and different sample of study. Therefore, this study has contributed to knowledge in this area, especially on the influence of spirituality at work, HRM practices, and employee engagement towards job performance (task performance and contextual performance) of Malaysian nurses in public sector.

5.4.2 Practical Implications

Part of the objectives of this study is to present outcomes which might be beneficial and practical for nurses to achieve high job performance in their field. Consequently, the present study is also useful to the management of hospitals as well as to Malaysia Ministry of Health in furthering understanding on how resources such as spirituality at work and HRM practices might influence job performance of nurses in general hospitals throughout Malaysia. This is important because healthcare industry especially in public sector is currently faced with disproportion between demand and supply of nurses which will affect their workloads as well as reducing their job performance and also quality care to patients. Findings from this study showed that nurses who have higher level of spirituality at work (inner life, meaningful work, sense of community), positive perception towards organization's HRM practices (career development, employee participation, performance appraisal, training and development) and are engaged are more likely to achieve higher job performance than those who do not.

The results of this study also provide some information and guidelines for management of the hospitals as well as supervisors (matron and sisters) about spirituality at work and how spirituality at work guides the actions of peers and subordinates. Findings from this study provide evidence that inner life, meaningful work, and sense of community would influence task performance and contextual performance of nurses. Therefore, nursing management and immediate supervisors should ensure to include spirituality at work values in their working environment. Nursing management and immediate supervisors can improve nurse's perception of the sense of inner strength, meaning in work, and sense of belonging to each other through job development,

enrichment, enhance a teamwork and staff connection by creating a friendly atmosphere based on cooperation. By involving the concept of spirituality in nurses' daily jobs can provide them towards the achievement of their self-enrichment and realizing their self-actualization needs.

Besides, based on the study findings, HR practitioners in Malaysia Ministry of Health especially hospitals would be wise to focus on issues related to policies of HRM practices such as career development, employee participation, performance appraisal, and training and development. These are important because the way hospitals manage their human resources activities establishes the tone and conditions of the employee-employer relationship which has a great influence on nurses' work behavior such as job performance which eventually impact the performance of the hospitals as a whole. The findings of this study supported that positive nurses' perceptions of HRM practices (i.e. career development, performance appraisal, and training and development) could provide greater opportunity to perform in their job. Hence, promoting staff nurse's awareness and perception of HRM practices will influence the degree to which nurses are positively or negatively perform in their job. The management could explore and strengthen various awareness and perception building initiatives through seminars and workshops.

In addition, HR practitioners should provide clear picture of staff nurses career paths such as proper career development-based activities, planning assistance and develop more favorable working environment that would motivate nurses to perform in their job. Examples of career development-based activities are participating in workshops or seminars, attend conferences, mentoring and in-service education. Proper career

development activities are important since it helps nurses keep update with their training so that, they can deliver the best quality care to patient.

In addition, nursing management could include participative management in professional nursing practices models as one of the ways to increase participation among nurses. Immediate supervisors also could establish guidelines for maintaining nurses' participation in hospital affairs particularly on matters affecting their day-to-day responsibilities and involve them in quality improvement program in order to deliver high quality of care as well as improve their job performance. Immediate supervisor or sisters should provide constructive feedback on their nurses' performance, so high performing nurses can be motivated to stay in their jobs while low performing nurses can be given opportunities to improve their performance. Further, as nurses constantly faces with challenges in delivering care and treating for patients, they need to attend ongoing educational training and programs that are being planned to enhance their knowledge, skills and abilities.

Finally, the results from this study confirmed a significant and positive relationship between employee engagement on job performance of nurses. Further added, employee engagement also acts as mediator in the relationship between spirituality at work, HRM practices (employee participation and training and development) and job performance. Hence, HR practitioners could create or modify HR policies to continuously support and facilitate staff nurses' engagement. Since many hospitals tend to conduct annually employee opinion survey about their job and hospitals, HR practitioners could integrate employee engagement items into their survey. By doing so, management may review, and address issues related to employee engagement over time and discover the links

between employee engagement and other organizational interest. Nursing management also could develop and design learning programs or workshops that would foster individual vigor, dedication, and absorption to help their nurses have a high level of engagement for higher job performance.

5.4.3 Methodological Contribution

Previous studies such as Cho and Han (2018), Mahat et al. (2018), Nasurdin et al. (2018), Sharma and Dhar (2016), Islam and Al-Homayan (2013), Nabirye et al. (2011), and Al-Ahmadi (2009), have been focusing on evaluating nurses' performance using single informant through self-rating where nurse rated her own job performance. Self-rating could lead to bias. Hence, there is lack of study where performance of nurses is rated by their supervisor (Bhatti et al., 2018). This study takes different approach by employing multiple informants' method to gather data. Data for independent variables such as Spirituality at Work, HRM Practices (employee participation, training and development, career development and performance appraisal) and employee engagement were gathered from staff nurses whereas data for job performance, the dependent variable were gathered from immediate supervisor or sisters. This could minimize the effect of common method variance.

5.5 Limitations and Suggestions for Future Studies

Regardless of the enormous contributions provided by this study theoretically as well as practically, still there are quite a few of limitations of the study that should be noted. Firstly, this study only concentrated on nurses and their immediate supervisors (sisters) who employed in ten general hospitals in Malaysia and does not include nurses and their sisters in private hospitals. Future research should consider on widen the scope by

incorporating nurses and their sisters from private hospitals and any other medical institutions and perform the comparative study across different sector. It is because a larger sample in same industry can improve the generalization of findings.

Secondly, this study was performed using cross-sectional design, which cannot confirm the causality between the variables. Although there are advantages of using cross-sectional design, however, this cross-sectional study only provides a snapshot view of the research phenomena in which the data of all measures were collected at the same time. According to Sekaran and Bougie (2010), one of the drawbacks of cross-sectional study is the restriction to prove the cause-effect relationship amongst the variables. Hence, to enhance the precision of findings, a longitudinal study is suggested for future research since individuals' perceptions, attitudes, and behaviors could change over time.

Thirdly, the data obtained for this study was only collected through a set of questionnaires. Therefore, the feedbacks received from respondents were solely depended on the voluntary cooperation of the individuals. The responses may be inconsistent accurate measure of job performance of nurses since the immediate supervisors may not be sincere in answering the questions in order to show that their subordinates have a good performance under them. Thus, quantitative and qualitative methods of research should be considered in future to examine the issues of nurses' job performance.

Finally, this study only focused and limited to two independent variables (i.e. spirituality at work, and HRM practices), and one mediating variable which is employee engagement. Based on the findings from bootstrapping output, the low R^2 (refer Table 4.12) of the model suggests that there might be other factors which could also affect job

performance of nurses. For example, Chen et al. (2019), Nasurdin et al. (2018), Arshad et al. (2016), and Othman (2012), had identified that psychological capital, social support, job characteristics, working condition are significant predictors for job performance of nurses. Thus, it is suggested that future researcher may expend the scope of the study by incorporating other variables to extend the framework proposed in this study.

5.6 Conclusions

The purpose of this study was to investigate the relationship between spirituality at work, HRM practices, employee engagement and job performance (task and contextual performance) among nurses at public hospitals in Malaysia. Besides that, this study also tested the possibility of employee engagement served as mediator in the relationship between independent variables (spirituality at work and HRM practices) and dependent variables (task and contextual performance).

This study has met all seven research questions/objectives as presented in Chapter 1. The first two objectives were to examine the influence of spirituality at work, HRM practices on job performance (task and contextual performance), meanwhile the next two (three to four) objectives were to determine the influence of spirituality at work, HRM practices on employee engagement. The fifth objective was to examine the influence of employee engagement on job performance (task and contextual performance). The last two objectives (six to seven) involved with mediating influence of employee engagement on the relationship between spirituality at work, HRM practices and job performance (task and contextual performance). The results of the study are presented from Table 4.15 till Table 4.18. Findings indicated that spirituality at work and some dimensions of HRM practices have significant influence with job performance. Further, spirituality at work

and several dimensions of HRM practices found to have significant influence with employee engagement. Meanwhile, employee engagement was found to have significant and positive influence on job performance. Bootstrapping the indirect effect output revealed that employee engagement mediated the relationship between spirituality at work and some dimensions of HRM practices (employee participation and training and development). This study also confirmed the Self Determination Theory and Social Exchange Theory, which suggests that an individual's spirituality at work and support system from organization in terms of certain HRM practices would trigger an individual to involve in positive attitude such as employee engagement which would facilitate an individual's behavior to achieve high performance. Therefore, based on the findings, this study suggested that in order for nurses in Malaysia public hospitals to achieve higher job performance, nurses must have high level of spirituality at work, positive perception towards organization's HRM practices, and also involve in attitude of employee engagement.

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APPENDICES

APPENDIX 1:Questionnaire Set A

No Id :……

Pusat Pengajian Pengurusan Perniagaan
SCHOOL OF BUSINESS MANAGEMENT
Universiti Utara Malaysia

QUESTIONNAIRE – SET A (FOR STAFF NURSE)

Dear respondents,

I am a PhD student from the School of Business Management, Universiti Utara Malaysia (UUM). I am conducting a study on "Determinants of Job Performance of Nurses" which is parts of my PhD endeavors. The purpose of the study is to obtain information relating to how spirituality at work, HRM practices, and employee engagement influence job performance of nurses in Malaysia public hospitals.

Your participation in this study is voluntary. If you choose not to participate or withdraw from the study at any time, you can do so without penalty or loss of benefit to yourself. I understand that your time is precious. If you agree to participate in this study, please answer the questions on the questionnaire as best as you can. It should take approximately 15 minutes to complete the questionnaire. Your responses will remain confidential and anonymous. Data from this research will be kept as a collective combined total. No one other than the researcher will know your individual answers to this questionnaire.

After answering the questions, kindly return the questionnaire to respective representative.

Thank you for your effort and time taken in answering this questionnaire.

Yours sincerely,
Rabiatul Adawiyah Ma'arof
Doctoral Candidate
E-mail: rabiatul_adawiyah1989@yahoo.com
Phone No: 017-8843218

No Id :……

SOAL SELIDIK – SET A (UNTUK KAKITANGAN JURURAWAT)

Responden yang dihormati,

Saya seorang pelajar Doktor Falsafah dari Pusat Pengajian Pengurusan Perniagaan, Universiti Utara Malaysia (UUM). Saya menjalankan kajian tentang "Penentu Prestasi Kerja Jururawat" yang merupakan sebahagian daripada pengajian Doktor Falsafah saya. Tujuan kajian ini adalah untuk mendapatkan maklumat yang berkaitan dengan bagaimana kerohanian di tempat kerja, amalan Pengurusan Sumber Manusia, dan keterikatan pekerja mempengaruhi prestasi kerja jururawat di hospital-hospital awam di Malaysia.

Penyertaan anda dalam kajian ini adalah secara sukarela. Jika anda memilih untuk tidak menyertai atau menarik diri dari kajian ini pada bila-bila masa, anda boleh berbuat demikian tanpa penalti atau kehilangan manfaat kepada diri anda. Saya faham bahawa masa anda amat berharga. Jika anda bersetuju untuk mengambil bahagian dalam kajian ini, sila jawab soalan-soalan di dalam soal selidik sebaik mungkin. Ia mengambil kira anggaran 15 minit untuk melengkapkan soal selidik. Jawapan anda akan kekal rahsia dan tanpa nama. Data daripada kajian ini akan disimpan sebagai jumlah kolektif gabungan. Tidak ada yang lain selain daripada penyelidik akan mengetahui jawapan individu anda untuk soal selidik ini.

Selepas menjawab soalan, sila kembalikan borang soal selidik ini kepada wakil masing-masing.

Terima kasih kerana usaha dan mengambil masa anda untuk menjawab soal selidik ini.

Yang benar,
Rabiatul Adawiyah Ma'arof
Calon Doktor Falsafah
E-mail: rabiatul_adawiyah1989@yahoo.com
Phone No: 017-8843218

SECTION 1: Personal Information
BAHAGIAN 1: Maklumat Peribadi

This section contains general information about you. Please tick (√) in the box and write your responses in the space provided.
Bahagian ini mengandungi maklumat umum mengenai diri tuan/puan. Sila tandakan (√) di dalam kotak yang sesuai atau isi ruang kosong yang disediakan (jika berkenaan).

1. Gender *(Jantina)*:

☐ Male *(Lelaki)*

☐ Female *(Perempuan)*

2. Age *(Umur)*: ……. Years *(tahun)*

3. Marital status *(Status perkahwinan)*:

☐ Single *(Bujang)*

☐ Married *(Berkahwin)*

☐ Others; please specify *(Lain-lain; sila nyatakan)* ……..

4. Ethnicity *(Bangsa)*:

☐ Malay *(Melayu)*

☐ Chinese *(Cina)*

☐ Indian *(India)*

☐ Others; please specify *(Lain-lain; sila nyatakan)* ……

5. Length of service in current hospital *(Tempoh perkhidmatan tuan/puan di hospital ini)*: ……

6. Length of service in nursing profession *(Tempoh perkhidmatan dalam bidang kejururawatan)*: ……

7. Educational qualification in nursing (*Kelayakan akademik tertinggin tuan/puan)*:

☐ Diploma *(Diploma)*

☐ Bachelors *(Ijazah Sarjana Muda)*

☐ Master *(Ijazah Sarjana)*

☐ Others; please specify *(Lain-lain; sila nyatakan)*…….

8. Department *(Jabatan)*: ……..

SECTION 2: Spirituality at Work
BAHAGIAN 2: Kerohanian di Tempat Kerja

The following statements are regarding perception on how you feel at work. Please indicate your responses by circling the number stated below.
Kenyataan berikut adalah berhubung dengan persepsi tentang bagaimana anda rasa di tempat kerja. Sila nyatakan jawapan anda dengan membulatkan nombor yang dinyatakan di bawah.

1 Strongly Disagree *Sangat Tidak Bersetuju*	**2** Disagree *Tidak Bersetuju*	**3** Slightly Disagree *Agak Tidak Bersetuju*	**4** Neither Agree nor Disagree *Tidak Pasti*	**5** Slightly Agree *Agak Bersetuju*	**6** Agree *Setuju*	**7** Strongly Agree *Sangat Setuju*

1.	I experience joy in my work. *Saya berasa gembira dengan kerja saya.*	1	2	3	4	5	6	7
2.	I believe others experience joy as a result of my work. *Saya percaya orang lain juga berasa gembira hasil daripada kerja saya.*	1	2	3	4	5	6	7
3.	My spirit energized by my work. *Semangat saya menjadi sumber tenaga kepada kerja saya.*	1	2	3	4	5	6	7
4.	The work I do is connected to what I think is important in life. *Kerja yang saya lakukan mempunyai perhubungan dengan apa yang saya fikir adalah penting dalam kehidupan.*	1	2	3	4	5	6	7
5.	I look forward to coming to work most days. *Saya tidak sabar untuk datang bekerja pada kebanyakan hari.*	1	2	3	4	5	6	7
6.	I see a connection between my work and the larger social good of my community. *Saya melihat hubungan yang baik antara kerja saya dan keadaan sosial dalam masyarakat.*	1	2	3	4	5	6	7
7.	I understand what gives my work personal meaning. *Saya faham apa yang memberi makna tersendiri terhadap kerja saya.*	1	2	3	4	5	6	7

1 Strongly Disagree *Sangat Tidak Bersetuju*	**2** Disagree *Tidak Bersetuju*	**3** Slightly Disagree *Agak Tidak Bersetuju*	**4** Neither Agree nor Disagree *Tidak Pasti*	**5** Slightly Agree *Agak Bersetuju*	**6** Agree *Setuju*	**7** Strongly Agree *Sangat Setuju*

8.	I feel hopeful about life. *Saya menaruh harapan yang besar tentang kehidupan.*	1	2	3	4	5	6	7
9.	My spiritual values influence the choices I make. *Nilai-nilai rohani saya menpengaruhi pilihan yang saya buat.*	1	2	3	4	5	6	7
10.	I consider myself a spiritual person. *Saya menganggap diri saya seorang yang mempunyai kerohanian yang tinggi.*	1	2	3	4	5	6	7
11.	Prayer is an important part of my life. *Doa/Solat/Sembahyang adalah satu bahagian penting dalam hidup saya.*	1	2	3	4	5	6	7
12.	I care about the spiritual health of my co-workers. *Saya mengambil berat tentang kesihatan rohani rakan sekerja saya.*	1	2	3	4	5	6	7
13.	I feel part of a community in my immediate workplace (department, unit). *Saya berasa seperti sebahangian daripada komuniti di tempat kerja saya (jabatan, unit).*	1	2	3	4	5	6	7
14.	My superior encourages my personal growth. *Penyelia saya menggalakkan pembangunan peribadi saya.*	1	2	3	4	5	6	7
15.	I have had numerous experiences in my job which have resulted in personal growth. *Saya mempunyai banyak pengalaman dalam kerja saya yang telah memberikan kemajuan ke atas diri saya.*	1	2	3	4	5	6	7
16.	When I have fears, I am encouraged to discuss them. *Apabila saya berasa takut, saya digalakkan untuk membincangkan ketakutan itu.*	1	2	3	4	5	6	7

1 Strongly Disagree *Sangat Tidak Setuju*	**2** Disagree *Tidak Setuju*	**3** Slightly Disagree *Agak Tidak Bersetuju*	**4** Neither Agree nor Disagree *Tidak Pasti*	**5** Slightly Agree *Agak Setuju*	**6** Agree *Setuju*	**7** Strongly Agree *Sangat Bersetuju*

17.	When I have a concern, I represent it to the appropriate person. *Apabila saya berasa bimbang, saya menjelaskannya kepada orang yang sesuai.*	1	2	3	4	5	6	7
18.	At work, we work together to resolve conflict in a positive way. *Di tempat kerja, kami bekerja bersama-sama untuk menyelesaikan konflik dengan cara yang positif.*	1	2	3	4	5	6	7
19.	I am evaluated fairly here. *Saya dinilai secara adil di sini.*	1	2	3	4	5	6	7
20.	I am encouraged to take risks at work. *Saya digalakkan untuk mengambil risiko di tempat kerja.*	1	2	3	4	5	6	7
21.	I am valued at work for who I am. *Saya dihargai di tempat kerja untuk siapa diri saya.*	1	2	3	4	5	6	7

SECTION 3: Human Resource Management Practices
BAHAGIAN 3: Amalan Pengurusan Sumber Manusia

The following statements indicate the degree of your perception toward the organization's Human Resource Management practices for which hospital you are now working. Please indicate your responses by circling the number stated below.
Kenyataan berikut menunjukkan tahap persepsi anda terhadap amalan Pergurusan Sumber Manusia di hospital yang anda sekarang bekerja. Sila nyatakan jawapan anda dengan membulatkan nombor yang dinyatakan di bawah.

1 Strongly Disagree *Sangat Tidak Setuju*	**2** Disagree *Tidak Setuju*	**3** Slightly Disagree *Agak Tidak Bersetuju*	**4** Neither Agree nor Disagree *Tidak Pasti*	**5** Slightly Agree *Agak Setuju*	**6** Agree *Setuju*	**7** Strongly Agree *Sangat Bersetuju*

1.	I have clear career paths within this hospital. *Saya mempunyai laluan kerjaya yang jelas dalam hospital ini.*	1	2	3	4	5	6	7
2.	I have very little future within this hospital (reverse coded). *Saya mempunyai masa depan yang sangat kecil dalam hospital ini (dikodkan sebaliknya).*	1	2	3	4	5	6	7
3.	My career aspirations within this hospital are known by my immediate supervisor. *Aspirasi kerjaya saya dalam hospital ini diketahui oleh penyelia langsung saya.*	1	2	3	4	5	6	7
4.	I have more than one potential position that could be promoted to. *Saya mempunyai lebih daripada satu jawatan yang berpotensi bagi kenaikan pangkat.*	1	2	3	4	5	6	7
5.	I am allowed to make many decisions. *Saya dibenarkan untuk membuat banyak keputusan.*	1	2	3	4	5	6	7
6.	My supervisor often asks me to participate in decisions. *Penyelia saya sering meminta saya untuk mengambil bahagian dalam membuat keputusan.*	1	2	3	4	5	6	7
7.	I have opportunities to suggest improvements in the way things are done. *Saya mempunyai peluang untuk mencadangkan penambahbaikan dalam cara kerja dilakukan.*	1	2	3	4	5	6	7

1 Strongly Disagree *Sangat Tidak Setuju*	**2** Disagree *Tidak Setuju*	**3** Slightly Disagree *Agak Tidak Bersetuju*	**4** Neither Agree nor Disagree *Tidak Pasti*	**5** Slightly Agree *Agak Setuju*	**6** Agree *Setuju*	**7** Strongly Agree *Sangat Bersetuju*

8.	My superiors keep open communications with me in this job. *Pihak atasan saya mengekalkan komunikasi terbuka dengan saya dalam pekerjaan ini.*	1	2	3	4	5	6	7
9.	My performance is measured based on written and objective quantifiable result. *Prestasi saya dinilai secara bertulis dan boleh diukur secara objektif.*	1	2	3	4	5	6	7
10.	Appraisal system in this hospital is up to date. *Sistem penilaian prestasi di hospital saya adalah terkini.*	1	2	3	4	5	6	7
11.	Feedback and counselling of my performance appraisal results is provided. *Maklum balas dan kaunseling mengenai hasil penilaian prestasi saya disediakan.*	1	2	3	4	5	6	7
12.	I trust my hospital performance appraisal system. *Saya percaya dengan sistem penilaian prestasi hospital saya.*	1	2	3	4	5	6	7
13.	My performance appraisal has strong influence on individual and team behaviour. *Hasil penilaian prestasi saya mempunyai pengaruh yang kuat terhadap tingkah laku individu dan pasukan.*	1	2	3	4	5	6	7
14.	My appraisal result is used for making decisions like job rotation, training and compensation. *Hasil penilaian prestasi saya digunakan untuk membuat keputusan seperti tukaran kerja, latihan dan pampasan.*	1	2	3	4	5	6	7
15.	I am clear about the objectives of the appraisal system in my hospital. *Saya jelas dengan objektif sistem penilaian di hospital saya.*	1	2	3	4	5	6	7
16.	I am given extensive training to develop my skills, attitudes and provide more knowledge. *Saya diberikan latihan yang luas untuk membangunkan kemahiran dan sikap,serta pengetahuan yang lebih banyak.*	1	2	3	4	5	6	7

1 Strongly Disagree *Sangat Tidak Setuju*	**2** Disagree *Tidak Setuju*	**3** Slightly Disagree *Agak Tidak Bersetuju*	**4** Neither Agree nor Disagree *Tidak Pasti*	**5** Slightly Agree *Agak Setuju*	**6** Agree *Setuju*	**7** Strongly Agree *Sangat Bersetuju*

17.	I will normally go through training programs every few years. *Saya biasanya akan menyertai program latihan setiap beberapa tahun.*	1	2	3	4	5	6	7
18.	Formal training programs are provided for all new nurses to sharpen the skills to perform the jobs. *Program latihan rasmi disediakan untuk semua jururawat baharu bagi mengasah kemahiran untuk melaksanakan kerja.*	1	2	3	4	5	6	7
19.	Formal training programs are offered to me in order to increase the chances for me for promotion in the hospital. *Program latihan rasmi ditawarkan kepada saya untuk meningkatkan peluang bagi saya untuk kenaikan pangkat di hospital.*	1	2	3	4	5	6	7

SECTION 4: Employee Engagement
BAHAGIAN 4: Keterikatan Pekerja

The following statements are about your employee engagement in the hospital. Please indicate your responses by circling the number stated below.
Kenyataan berikut adalah tentang penglibatan pekerja anda di hospital. Sila nyatakan jawapan anda dengan membulatkan nombor yang dinyatakan di bawah.

1 Never *Tidak Pernah*	**2** Almost Never *Hampir Tidak Pernah*	**3** Rarely *Jarang-Jarang*	**4** Sometimes *Kadand-Kadang*	**5** Often *Seringkali*	**6** Very Often *Sangat Kerap*	**7** Always *Sentiasa*

1.	At my work, I feel bursting with energy. *Saya berasa amat bertenaga ketika berada di tempat kerja.*	1	2	3	4	5	6	7
2.	At my job, I feel strong and vigorous. *Di tempat kerja, saya berasa kuat dan aktif.*	1	2	3	4	5	6	7
3.	When I get up in the morning, I feel like going to work. *Apabila saya bangun pada waktu pagi, saya berasa ingin terus pergi ke tempat kerja.*	1	2	3	4	5	6	7
4.	I am enthusiastic about my job. *Saya berasa bersemangat dengan pekerjaan saya.*	1	2	3	4	5	6	7
5.	My job inspires me. *Pekerjaan saya memberi inspirasi kepada saya.*	1	2	3	4	5	6	7
6.	I am proud of the work that I do. *Saya bangga dengan kerja yang saya lakukan.*	1	2	3	4	5	6	7
7.	I feel happy when I am working intensely. *Saya berasa gembira apabila saya bekerja dengan gigih.*	1	2	3	4	5	6	7
8.	I am immersed in my work. *Saya begitu taksub dengan pekerjaan saya.*	1	2	3	4	5	6	7
9.	I get carried away when I am working. *Saya sering terbawa-bawa semasa saya bekerja.*	1	2	3	4	5	6	7

Thank you for your cooperation.
Terima kasih diatas kerjasama anda.

APPENDIX 2: Questionnaire Set B

No Id :……

QUESTIONNAIRE – SET B (FOR SISTER)

Dear respondents,

I am a PhD student from the School of Business Management, Universiti Utara Malaysia (UUM). I am conducting a study on "Determinants of Job Performance of Nurses" which is parts of my PhD endeavors. The purpose of the study is to obtain information relating to how spirituality at work, HRM practices, and employee engagement influence job performance of nurses in Malaysia public hospitals.

Your participation in this study is voluntary. If you choose not to participate or withdraw from the study at any time, you can do so without penalty or loss of benefit to yourself. I understand that your time is precious. If you agree to participate in this study, please answer the questions on the questionnaire as best as you can. It should take approximately 15 minutes to complete the questionnaire. Your responses will remain confidential and anonymous. Data from this research will be kept as a collective combined total. No one other than the researcher will know your individual answers to this questionnaire.

After answering the questions, kindly return the questionnaire to respective representative.

Thank you for your effort and time taken in answering this questionnaire.

Yours sincerely,
Rabiatul Adawiyah Ma'arof
Doctoral Candidate
E-mail: rabiatul_adawiyah1989@yahoo.com
Phone No: 017-8843218

Pusat Pengajian
Pengurusan Perniagaan
SCHOOL OF BUSINESS MANAGEMENT
Universiti Utara Malaysia

No Id :……

SOAL SELIDIK – SET B (UNTUK MATRON/SISTER)

Responden yang dihormati,

Saya seorang pelajar Doktor Falsafah dari Pusat Pengajian Pengurusan Perniagaan, Universiti Utara Malaysia (UUM). Saya menjalankan kajian tentang "Penentu Prestasi Kerja Jururawat" yang merupakan sebahagian daripada pengajian Doktor Falsafah saya. Tujuan kajian ini adalah untuk mendapatkan maklumat yang berkaitan dengan bagaimana kerohanian di tempat kerja, amalan Pengurusan Sumber Manusia, dan keterikatan pekerja mempengaruhi prestasi kerja jururawat di hospital-hospital awam di Malaysia.

Penyertaan anda dalam kajian ini adalah secara sukarela. Jika anda memilih untuk tidak menyertai atau menarik diri dari kajian ini pada bila-bila masa, anda boleh berbuat demikian tanpa penalti atau kehilangan manfaat kepada diri anda. Saya faham bahawa masa anda amat berharga. Jika anda bersetuju untuk mengambil bahagian dalam kajian ini, sila jawab soalan-soalan di dalam soal selidik sebaik mungkin. Ia mengambil kira anggaran 15 minit untuk melengkapkan soal selidik. Jawapan anda akan kekal rahsia dan tanpa nama. Data daripada kajian ini akan disimpan sebagai jumlah kolektif gabungan. Tidak ada yang lain selain daripada penyelidik akan mengetahui jawapan individu anda untuk soal selidik ini.

Selepas menjawab soalan, sila kembalikan borang soal selidik ini kepada wakil masing-masing.

Terima kasih kerana usaha dan mengambil masa anda untuk menjawab soal selidik ini.

Yang benar,
Rabiatul Adawiyah Ma'arof
Calon Doktor Falsafah
E-mail: rabiatul_adawiyah1989@yahoo.com
Phone No: 017-8843218

SECTION 1: Personal Information
BAHAGIAN 1: Maklumat Peribadi

This section contains general information about you. Please tick (√) in the box and write your responses in the space provided.
Bahagian ini mengandungi maklumat umum mengenai diri tuan/puan. Sila tandakan (√) di dalam kotak yang sesuai atau isi ruang kosong yang disediakan (jika berkenaan).

1. Gender *(Jantina)*:

☐ Male *(Lelaki)*

☐ Female *(Perempuan)*

2. Age *(Umur)*: ……. Years *(tahun)*

3. Marital status *(Status perkahwinan)*:

☐ Single *(Bujang)*

☐ Married *(Berkahwin)*

☐ Others; please specify *(Lain-lain; sila nyatakan)* ……..

4. Ethnicity *(Bangsa)*:

☐ Malay *(Melayu)*

☐ Chinese *(Cina)*

☐ Indian *(India)*

☐ Others; please specify *(Lain-lain; sila nyatakan)* ……

5. Length of service in current hospital *(Tempoh perkhidmatan tuan/puan di hospital ini)*: ……

6. Length of service in nursing profession *(Tempoh perkhidmatan dalam bidang kejururawatan)*: ……

7. Educational qualification in nursing (*Kelayakan akademik tertinggin tuan/puan)*:

☐ Diploma *(Diploma)*

☐ Bachelors *(Ijazah Sarjana Muda)*

☐ Master *(Ijazah Sarjana)*

☐ Others; please specify *(Lain-lain; sila nyatakan)*…….

8. Department *(Jabatan)*: ……..

SECTION 2: Job Performance of Nurses
BAHAGIAN 2: Prestasi Kerja Jururawat

The statements below are regarding the above-mentioned nurse's job performance. Please indicate your evaluation of the nurse's performance under your supervision by circling the number stated below.
Kenyataan berikut adalah menjelaskan tentang prestasi kerja jururawat. Sila nyatakan tahap persetujuan tuan/puan terhadap kenyataan mengenai prestasi kerja jururawat di bawah seliaan tuan/puan dengan membulatkan nombor yang dinyatakan di bawah.

1 Strongly Disagree *Sangat Tidak Setuju*	**2** Disagree *Tidak Setuju*	**3** Slightly Disagree *Agak Tidak Bersetuju*	**4** Neither Agree nor Disagree *Tidak Pasti*	**5** Slightly Agree *Agak Setuju*	**6** Agree *Setuju*	**7** Strongly Agree *Sangat Setuju*

This nurse performs/ performed the following:
Jururawat ini menjalankan/telah menjalankan perkara berikut:

1.	Explaining to patients what to expect when they leave the hospital. *Menerangkan kepada pesakit apa yang boleh dijangkakan apabila mereka meninggalkan hospital.*	1	2	3	4	5	6	7
2.	Providing instructions for care at home. *Memberikan arahan untuk penjagaan di rumah.*	1	2	3	4	5	6	7
3.	Explaining to families what to do if the patient's problems or symptoms continue, get worse, or return. *Menerangkan kepada keluarga apa yang perlu dilakukan jika masalah atau gejala pesakit semakin berterusan, bertambah buruk, atau kembali.*	1	2	3	4	5	6	7
4.	Explaining to patients when they can resume normal activities, such as going to work or driving a car. *Menerangkan kepada pesakit bila mereka boleh meneruskan aktiviti harian, seperti pergi ke tempat kerja atau memandu kereta.*	1	2	3	4	5	6	7

1 Strongly Disagree *Sangat Tidak Setuju*	2 Disagree *Tidak Setuju*	3 Slightly Disagree *Agak Tidak Bersetuju*	4 Neither Agree nor Disagree *Tidak Pasti*	5 Slightly Agree *Agak Setuju*	6 Agree *Setuju*	7 Strongly Agree *Sangat Setuju*

This nurse performs/ performed the following:
Jururawat ini menjalankan/telah menjalankan perkara berikut:

5.	Providing appropriate information to families about nursing procedures performed. *Memberikan maklumat yang betul kepada keluarga tentang prosedur kejururawatan yang telah dilakukan.*	1	2	3	4	5	6	7
6.	Communicating to patients the purpose of nursing procedures. *Berkomunikasi dengan pesakit tentang tujuan prosedur kejururawatan.*	1	2	3	4	5	6	7
7.	Informing patients of the possible side-effects of nursing procedure. *Memaklumkan kepada pesakit kemungkinan kesan sampingan prosedur kejururawatan.*	1	2	3	4	5	6	7
8.	Explaining to nurses in the unit the nature of the patient's condition. *Menerangkan kepada jururawat di dalam unit tentang sifat keadaan pesakit.*	1	2	3	4	5	6	7
9.	Reporting the critical elements of patients' situations when turning over work shifts. *Melaporkan elemen-elemen kritikal keadaan pesakit apabila bertukar syif kerja.*	1	2	3	4	5	6	7
10.	Ensuring all members of the nursing unit is familiar with the patient's recent medical history. *Memastikan semua ahli unit kejururawatan agar mengetahui sejarah perubatan pesakit yang terkini.*	1	2	3	4	5	6	7
11.	Informing nurses in the unit about changes in a patient's treatment. *Memberitahu jururawat dalam unit perubahan dalam rawatan pesakit.*	1	2	3	4	5	6	7

1 Strongly Disagree *Sangat Tidak Setuju*	**2** Disagree *Tidak Setuju*	**3** Slightly Disagree *Agak Tidak Bersetuju*	**4** Neither Agree nor Disagree *Tidak Pasti*	**5** Slightly Agree *Agak Setuju*	**6** Agree *Setuju*	**7** Strongly Agree *Sangat Setuju*

This nurse performs/ performed the following:
Jururawat ini menjalankan/telah menjalankan perkara berikut:

12.	Informing all nurses in the unit about patient tests and their results. *Memberitahu semua jururawat dalam unit tentang ujian yang dijalankan ke atas pesakit dan keputusannya.*	1	2	3	4	5	6	7
13.	Showing care and concern to families. *Menunjukkan rasa kasih sayang dan keprihatinan kepada keluarga pesakit.*	1	2	3	4	5	6	7
14.	Listening to families' concerns. *Mendengar kebimbangan keluarga pesakit.*	1	2	3	4	5	6	7
15.	Taking time to meet families' emotional needs. *Meluangkan masa untuk memenuhi keperluan emosi keluarga.*	1	2	3	4	5	6	7
16.	Listening to patients' concerns. *Mendengar kebimbangan pesakit.*	1	2	3	4	5	6	7
17.	Taking time to meet the emotional needs of patients. *Meluangkan masa untuk memenuhi keperluan emosi pesakit.*	1	2	3	4	5	6	7
18.	Showing care and concern to patients. *Menunjukkan rasa kasih sayang dan keprihatian kepada pesakit.*	1	2	3	4	5	6	7
19.	Taking patient observations (e.g. blood pressure, pulse, temperature). *Menjalankan pemerhatian terhadap pesakit (sebagai contoh mengambil tekanan darah, nadi, suhu).*	1	2	3	4	5	6	7
20.	Assisting patients with activities of daily living (e.g. showering, toileting and feeding). *Membantu pesakit dalam aktiviti kehidupan harian (sebagai contoh mandi, ke tandas dan makan).*	1	2	3	4	5	6	7

1 Strongly Disagree *Sangat Tidak Setuju*	**2** Disagree *Tidak Setuju*	**3** Slightly Disagree *Agak Tidak Bersetuju*	**4** Neither Agree nor Disagree *Tidak Pasti*	**5** Slightly Agree *Agak Setuju*	**6** Agree *Setuju*	**7** Strongly Agree *Sangat Setuju*

This nurse performs/ performed the following:
Jururawat ini menjalankan/telah menjalankan perkara berikut:

21.	Developing a plan of nursing care for patients. *Membangunkan pelan penjagaan rawatan kepada pesakit.*	1	2	3	4	5	6	7
22.	Administering medications and treatments. *Menguruskan ubat-ubatan dan rawatan.*	1	2	3	4	5	6	7
23.	Evaluating the effectiveness of nursing care. *Menilai keberkesanan penjagaan rawatan.*	1	2	3	4	5	6	7
24.	Raising morale of other nurses in the unit. *Meningkatkan semangat jururawat lain dalam unit.*	1	2	3	4	5	6	7
25.	Helping nurses in the unit to resolve work problems. *Membantu jururawat lain dalam unit untuk menyelesaikan masalah kerja.*	1	2	3	4	5	6	7
26.	Consulting amongst each other when actions might affect other nurses in the unit. *Perbincangan di antara satu sama lain semasa melakukan tindakan mungkin memberi kesan kepada jururawat lain dalam unit.*	1	2	3	4	5	6	7
27.	Taking time to meet unit nurses' emotional needs. *Meluangkan masa untuk memenuhi keperluan emosi jururawat dalam unit.*	1	2	3	4	5	6	7
28.	Volunteering to share special knowledge or expertise with other nurses in the unit. *Sukarela untuk berkongsi pengetahuan atau kepakaran khas dengan jururawat lain dalam unit.*	1	2	3	4	5	6	7
29.	Helping nurses in the unit to catch up on their work. *Membantu jururawat dalam unit untuk menyiapkan kerja mereka.*	1	2	3	4	5	6	7

1 Strongly Disagree *Sangat Tidak Setuju*	2 Disagree *Tidak Setuju*	3 Slightly Disagree *Agak Tidak Bersetuju*	4 Neither Agree nor Disagree *Tidak Pasti*	5 Slightly Agree *Agak Setuju*	6 Agree *Setuju*	7 Strongly Agree *Sangat Setuju*

This nurse performs/ performed the following:
Jururawat ini menjalankan/telah menjalankan perkara berikut:

30.	Making special arrangements for a patient's family. *Menyediakan persiapan khas untuk keluarga pesakit.*	1	2	3	4	5	6	7
31.	Staying late to help families. *Pulang lewat untuk membantu keluarga pesakit.*	1	2	3	4	5	6	7
32.	Taking extra time to respond to a family's needs. *Meluangkan masa tambahan untuk memenuhi keperluan keluarga pesakit.*	1	2	3	4	5	6	7
33.	Making special arrangements for the patient. *Menyediakan persiapan khas untuk pesakit.*	1	2	3	4	5	6	7
34.	Staying late to help patients. *Pulang lewat untuk membantu pesakit.*	1	2	3	4	5	6	7
35.	Taking extra time to respond to a patient's needs. *Meluangkan masa tambahan untuk memenuhi keperluan pesakit.*	1	2	3	4	5	6	7
36.	Complying with hospital rules, regulations and procedures, even when no one is watching. *Mematuhi undang-undang, peraturan dan prosedur hospital, walaupun tiada siapa yang melihat.*	1	2	3	4	5	6	7
37.	Representing the hospital favorably to individuals outside the hospital. *Menunjukkan contoh yang baik bagi pihak hospital kepada individu-individu yang berada di luar.*	1	2	3	4	5	6	7
38.	Making sure that materials and equipment are not wasted. *Memastikan bahan-bahan dan peralatan tidak dibazirkan.*	1	2	3	4	5	6	7

1 Strongly Disagree *Sangat Tidak Setuju*	2 Disagree *Tidak Setuju*	3 Slightly Disagree *Agak Tidak Bersetuju*	4 Neither Agree nor Disagree *Tidak Pasti*	5 Slightly Agree *Agak Setuju*	6 Agree *Setuju*	7 Strongly Agree *Sangat Setuju*

This nurse performs/ performed the following:
Jururawat ini menjalankan/telah menjalankan perkara berikut:

39.	Volunteering to participate on committees within the hospital that are not compulsory. *Mengambil bahagian secara sukarela dalam jawatankuasa di hospital walaupun tidak diwajibkan.*	1	2	3	4	5	6	7
40.	Attending and participating in meetings regarding the hospital. *Menghadiri dan mengambil bahagian dalam mesyuarat yang berkaitan dengan hospital.*	1	2	3	4	5	6	7
41.	Making innovative suggestions to improve the overall quality of the department. *Membuat cadangan yang inovatif bagi meningkatkan kualiti keseluruhan jabatan.*	1	2	3	4	5	6	7

Thank you for your cooperation.

Terima kasih atas kerjasama anda.

APPENDIX 3: Questionnaire Translation

Rohana Ahmad
Sekolah Kebangsaan Sungai Abong,
Jalan Sungai Abong,
84000 Muar,
Johor.

To,
Whom It May Concern

29 APRIL 2015

Sir/Madam,

THE QUESTIONNAIRES TRANSLATION

I, Rohana Ahmad, an English teacher at Sekolah Kebangsaan Sungai Abong, Muar, Johor feel pleasure to certify that the questionnaires of the study titled "Determinants of Job Performance of Nurses" has been translated appropriately from English version to Malay version and from Malay version to English version. I go through both the questionnaires minutely and find the back-to-back translation are accurately translated. In my opinion, the survey questionnaires of the study have been designed carefully for the nurses and immediate supervisors at public hospitals in Malaysia.

Thank you.

Faithfully Yours,

(ROHANA AHMAD)
ENGLISH TEACHER,
SK SUNGAI ABONG,
MUAR, JOHOR.

APPENDIX 4: Expert Opinion

Munirah Binti Ahmad Sabri
Hospital Sultanah Nora Ismail,
Jalan Korma, Taman Soga,
83000 Batu Pahat,
Johor.

To,
Whom It May Concern

10 MAY 2015

Sir/Madam,

EXPERT OPINION OF THE CONTENT VALIDITY OF THE QUESTIONNAIRE

I, Munirah Binti Ahmad Sabri, a nurse at Hospital Sultanah Nora Ismail feel immense pleasure to go through the questionnaire of the study titled "Determinants of Job Performance of Nurses" which has been prepared in the context of developing country like Malaysia. In my opinion, the language of the items of the questionnaire is easy to understand for the position of nurses and is appropriate to discover the actual scenario about the determinants of job performance of nurses at public hospitals in Malaysia . I think the survey questionnaire of the study has been adapted very consciously for the nurses at public hospitals in Malaysia.

Thank you.

Faithfully Yours,

.....
(MUNIRAH AHMAD SABRI)
JURURAWAT U29
HOSPITAL SULTANAH NORA ISMAIL,
BATU PAHAT, JOHOR

APPENDIX 5: IAHOD Form

Ver 3.0 September 2014 *NMRR/FORM/IAHODIA*

INVESTIGATOR'S AGREEMENT, HEAD OF DEPARTMENT AND ORGANISATIONAL / INSTITUTIONAL APPROVAL
PERSETUJUAN PENYELIDIK DAN KEBENARAN KETUA JABATAN DAN PENGARAH ORGANISASI/INSTITUSI

This document is intended for online submission for formal research registration. It is issued as the Investigator's Agreement to participate in the research as well as the investigator's **Head of Department and Director's Approval**. Please upload this document in the required section in NMRR upon completion.
**Note: This form is NOT to be used for obtaining permission to conduct the research at the named / selected study site(s).

*Dokumen ini adalah untuk penghantaran 'online' mengikut prosedur rasmi pendaftaran penyelidikan. Borang ini dikeluarkan sebagai pengakuan penyelidik untuk menjalankan penyelidikan dan persetujuan serta kebenaran daripada **Ketua Jabatan dan Pengarah masing-masing**. Sila lengkapkan borang ini dan memuat naik ke dalam sistem NMRR di seksyen yang telah ditetapkan.*
***Nota : Borang ini BUKAN digunakan untuk tujuan mendapatkan keizinan untuk menjalankan penyelidikan di lokasi kajian yang dipilih.*

Research Title *[Tajuk Penyelidikan]*	Spirituality at Work (SAW), Human Resource Management (HRM) Practices and Job Performance Among Nurses at Public Hospitals: A Mediating Role of Employee Engagement		
Research ID *[Nombor Pendaftaran]*	19618	**Protocol Number (if available)** *[Nombor Protokol (jika ada)]*	

INVESTIGATOR'S AGREEMENT *[PERSETUJUAN PENYELIDIK]*

I have understood the above mentioned proposed research and I agree to participate as an investigator and being responsible to conduct the research.

Saya faham atas cadangan penyelidikan di atas dan bersetuju untuk mengambil bahagian serta bertanggungjawab untuk melaksanakan penyelidikan tersebut.

Name *[Nama]*	Rabiatul Adawiyah Bte Ma'arof
IC number *[Nombor K/P]*	890120015344
Institute *[Institusi]*	UNIVERSITI UTARA MALAYSIA (UUM)
Signature and Official stamp *[Tandatangan dan Cop Rasmi]*	
Date *[Tarikh]*	22/06/2015

HEAD OF DEPARTMENT AGREEMENT *[PERSETUJUAN KETUA JABATAN]*

I agree to allow the above named investigator to conduct the above titled research.

Saya bersetuju dan membenarkan pegawai seperti bernama di atas untuk menjadi penyelidik di dalam projek penyelidikan tersebut di atas.

Name of Head : *[Nama Ketua Jabatan]*	Prof Madya Dr. Faizuniah Bt Pangil
Signature and Official stamp *[Tandatangan dan Cop Rasmi]*	ASSOCIATE PROFESSOR DR. FAIZUNIAH PANGIL Head of Department Human Resources Management School of Business Management College of Business Universiti Utara Malaysia
Date *[Tarikh]*	22/6/2015

ORGANISATIONAL / INSTITUTIONAL APPROVAL *[KEBENARAN ORGANISASI / INSTITUSI]*

I acknowledge and approve the named officer to conduct the above titled research.

Saya mengesahkan dan mengambil maklum penglibatan pegawai ini di dalam penyelidikan tersebut.

Name of Director *[Nama Pengarah]*	b/p Dekan. SBM. Prof Madya Dr Salniza Md Salleh
Signature and Official stamp *[Tandatangan dan Cop Rasmi]*	PROF. MADYA DR. SALNIZA MD. SALLEH Timbalan Dekan Pusat Pengajian Pengurusan Perniagaan Kolej Perniagaan Universiti Utara Malaysia.
Date *[Tarikh]*	

This is computer generated. Borang ini adalah cetakan komputer. [19618/25145/100066]

APPENDIX 6: Approval Letter from National Institutes of Health

NATIONAL INSTITUTES OF HEALTH (NIH) RECOMMENDATION FOR THE CONDUCT OF RESEARCH IN THE MINISTRY OF HEALTH MALAYSIA
PENGESAHAN INSTITUSI KEBANGSAAN NEGARA UNTUK MENJALANKAN PENYELIDIKAN DI KEMENTERIAN KESIHATAN

This is an auto-generated document. It is issued by one of the research institute under the National Institutes of Health (NIH). The institutes as follows: Institute for Medical Research (IMR), Institute for Public Health (IPH), Clinical research centre (CRC), Institute for health Management (IHM), Institute for Health System Research (IHSR) and Institute for Health Behavioural Research (IHBR).

Dokumen ini adalah cetakan berkomputer. Borang ini dikeluarkan oleh salah satu institusi dibawah National Institutes of Health (NIH) iaitu Institut Penyelidikan Perubatan (IMR), Institut Kesihatan Umum (IKU), Pusat Penyelidikan Klinikal (CRC), Institut Pengurusan Kesihatan (IPK), Institut Pengurusan Sistem Kesihatan (IPSK) dan Institut Penyelidikan Tingkahlaku Kesihatan (IPTK).

Unique NMRR *(Nombor Pendaftaran)*	NMRR-14-1854-19618
Research Title *(Tajuk)*	Spirituality at Work (SAW), Human Resource Management (HRM) Practices and Job Performance Among Nurses at Public Hospitals: A Mediating Role of Employee Engagement
Protocol Number if *(Nombor Protokol jika ada)*	

#	**Investigator Name** *(Nama Penyelidikan)*	**Institution Name** *(Nama Institusi)*
1	Rabiatul Adawiyah Bte Ma'arof	

I have reviewed the above titled research, and has recommended to MREC* for its decision.
Saya telah menyemak penyelidikan yang bertajuk diatas, dan telah disyorkan untuk MREC bagi keputusannya.

Name of Director *(Nama pengarah)*	Pn. Siti Sa'adiah Hassan (IHBR)
NIH Institute (IMR, IPH, CRC, IHM, IHSR, IHBR) *(Nama Institusi di bawah NIH)*	Institute for Health Behavioural Research (IHBR)
Signature & Official Stamp *(Tandatangan dan Cop Rasmi)*	
Date *(Tarikh)*	01-09-2015

(final approval is pending MREC decision)

APPENDIX 7: Approval Letter from MREC

JAWATANKUASA ETIKA & PENYELIDIKAN PERUBATAN
(Medical Research & Ethics Committee)
KEMENTERIAN KESIHATAN MALAYSIA
d/a Institut Pengurusan Kesihatan
Jalan Rumah Sakit, Bangsar Tel : 03 2282 0491
59000 Kuala Lumpur Faks : 03 2282 8072 / 03 2282 0015

Ruj. Kami : (6) KKM/NIHSEC/P15-1128
Tarikh : 07 September 2015

RABIATUL ADAWIYAH BT MA'AROF
UNIVERSITI UTARA MALAYSIA (UUM)

Tuan/Puan,

NMRR-14-1854-19618 (IIR)
SPIRITUALITY AT WORK (SAW), HUMAN RESOURCE MANAGEMENT PRACTICES AND JOB PERFORMANCE AMONG NURSES AT PUBLIC HOSPITALS: A MEDIATING ROLE OF EMPLOYEE ENGAGEMENT

Lokasi Kajian:

BIL	LOKASI KAJIAN
1	HOSPITAL SULTANAH AMINAH, JOHOR BHARU
2	HOSPITAL MELAKA
3	HOSPITAL PAKAR SULTANAH FATIMAH, JOHOR
4	HOSPITAL PULAU PINANG
5	HOSPITAL QUEEN ELIZABETH, SABAH
6	HOSPITAL RAJA PEREMPUAN ZAINAB II, KELANTAN
7	HOSPITAL RAJA PERMAISURI BAINUN, IPOH
8	HOSPITAL SULTANAH BAHIYAH, ALOR SETAR
9	HOSPITAL SULTANAH NUR ZAHIRAH, KUALA TERENGGANU
10	HOSPITAL TENGKU AMPUAN AFZAN, KUANTAN
11	HOSPITAL TENGKU AMPUAN RAHIMAH, KLANG
12	HOSPITAL TUANKU FAUZIAH, PERLIS
13	HOSPITAL TUANKU JAAFAR, SEREMBAN
14	HOSPITAL UMUM SARAWAK

Dengan hormatnya perkara di atas adalah dirujuk.

2. Jawatankuasa Etika & Penyelidikan Perubatan (JEPP), Kementerian Kesihatan Malaysia (KKM) tiada halangan, dari segi etika ke atas pelaksanaan kajian tersebut. JEPP mengambil maklum bahawa kajian tersebut tidak mempunyai intervensi klinikal ke atas subjek dan hanya menggunakan **borang soal selidik** sahaja untuk mengumpul data kajian.

3. Segala rekod dan data subjek adalah **SULIT** dan hanya digunakan untuk tujuan kajian ini dan semua isu serta prosedur mengenai *data confidentiality* mesti dipatuhi. Kebenaran daripada Pegawai Kesihatan Daerah/Pengarah Hospital dan Ketua-Ketua Jabatan atau pegawai yang bertanggung jawab disetiap lokasi kajian di mana kajian akan dijalankan mesti diperolehi sebelum kajian dijalankan. Tuan/Puan perlu akur dan mematuhi keputusan tersebut.

4. Adalah dimaklumkan bahawa kelulusan ini adalah sah sehingga **07hb September 2016**. Tuan/Puan perlu menghantar dokumen-dokumen seperi berikut selepas mendapat kelulusan etika . Borang-borang berkaitan boleh dimuat turun daripada laman web MREC (http://www.nih.gov.my/mrec).

I. *'Continuing Review Form'* selewat-lewatnya 2 bulan sebelum tamat tempoh kelulusan ini bagi memperbaharui kelulusan etika.
II. Laporan tamat kajian pada penghujung kajian.
III. Laporan mengenai *"All adverse events, both serious and unexpected"/Protocol Deviation* atau *Violation* kepada Jawatankuasa Etika & Penyelidikan Perubatan, KKM jika berkenaan.
IV. Memaklumkan jika terdapat pindaan keatas sebarang dokumen kajian.

5. Sila ambil maklum bahawa sebarang urusan surat-menyurat berkaitan dengan penyelidikan ini haruslah dinyatakan nombor rujukan surat ini untuk melicinkan urusan yang berkaitan.

Sekian terima kasih.

BERKHIDMAT UNTUK NEGARA

Saya yang menurut perintah,

(DATO' DR CHANG KIAN MENG)
Pengerusi
Jawatankuasa Etika & Penyelidikan Perubatan
Kementerian Kesihatan Malaysia

CC

Pengarah
Hospital Sultanah Aminah, Johor Bharu

Pengarah
Hospital Melaka

Pengarah
Hospital Pakar Sultanah Fatimah

Pengarah
Hospital Pulau Pinang

Pengarah
Hospital Queen Elizabeth

Pengarah
Hospital Raja Perempuan Zainab II

Pengarah
Hospital Raja Permaisuri Bainun

Pengarah
Hospital Sultanah Bahiyah

Pengarah
Hospital Sultanah Nur Zahirah

Pengarah
Hospital Tengku Ampuan Afzan

Pengarah
Hospital Tengku Ampuan Rahimah

Pengarah
Hospital Tuanku Fauziah

Pengarah
Hospital Tuanku Jaafar

Pengarah
Hospital Umum Sarawak

Pusat Penyelidikan Klinikal
Hospital Sultanah Aminah

Pusat Penyelidikan Klinikal
Hospital Melaka

Pusat Penyelidikan Klinikal
Hospital Pulau Pinang

Pusat Penyelidikan Klinikal
Hospital Queen Elizabeth

Pusat Penyelidikan Klinikal
Hospital Raja Perempuan Zainab II

Pusat Penyelidikan Klinikal
Hospital Permaisuri Bainun

Pusat Penyelidikan Klinikal
Hospital Sultanah Bahiyah

Pusat Penyelidikan Klinikal
Hospital Sultanah Nur Zahirah

Pusat Penyelidikan Klinikal
Hospital Tengku Ampuan Afzan

Pusat Penyelidikan Klinikal
Hospital Tengku Ampuan Rahimah

Pusat Penyelidikan Klinikal
Hospital Tuanku Fauziah

Pusat Penyelidikan Klinikal
Hospital Tuanku Jaafar

Pusat Penyelidikan Klinikal
Hospital Umum Sarawak

APPENDIX 8: Chi-square Probability Distribution Table

Critical values of the Chi-square distribution with *d* degrees of freedom

	Probability of exceeding the critical value						
d	0.05	0.01	0.001	*d*	0.05	0.01	0.001
1	3.841	6.635	10.828	11	19.675	24.725	31.264
2	5.991	9.210	13.816	12	21.026	26.217	32.910
3	7.815	11.345	16.266	13	22.362	27.688	34.528
4	9.488	13.277	18.467	14	23.685	29.141	36.123
5	11.070	15.086	20.515	15	24.996	30.578	37.697
6	12.592	16.812	22.458	16	26.296	32.000	39.252
7	14.067	18.475	24.322	17	27.587	33.409	40.790
8	15.507	20.090	26.125	18	28.869	34.805	42.312
9	16.919	21.666	27.877	19	30.144	36.191	43.820
10	18.307	23.209	29.588	20	31.410	37.566	45.315

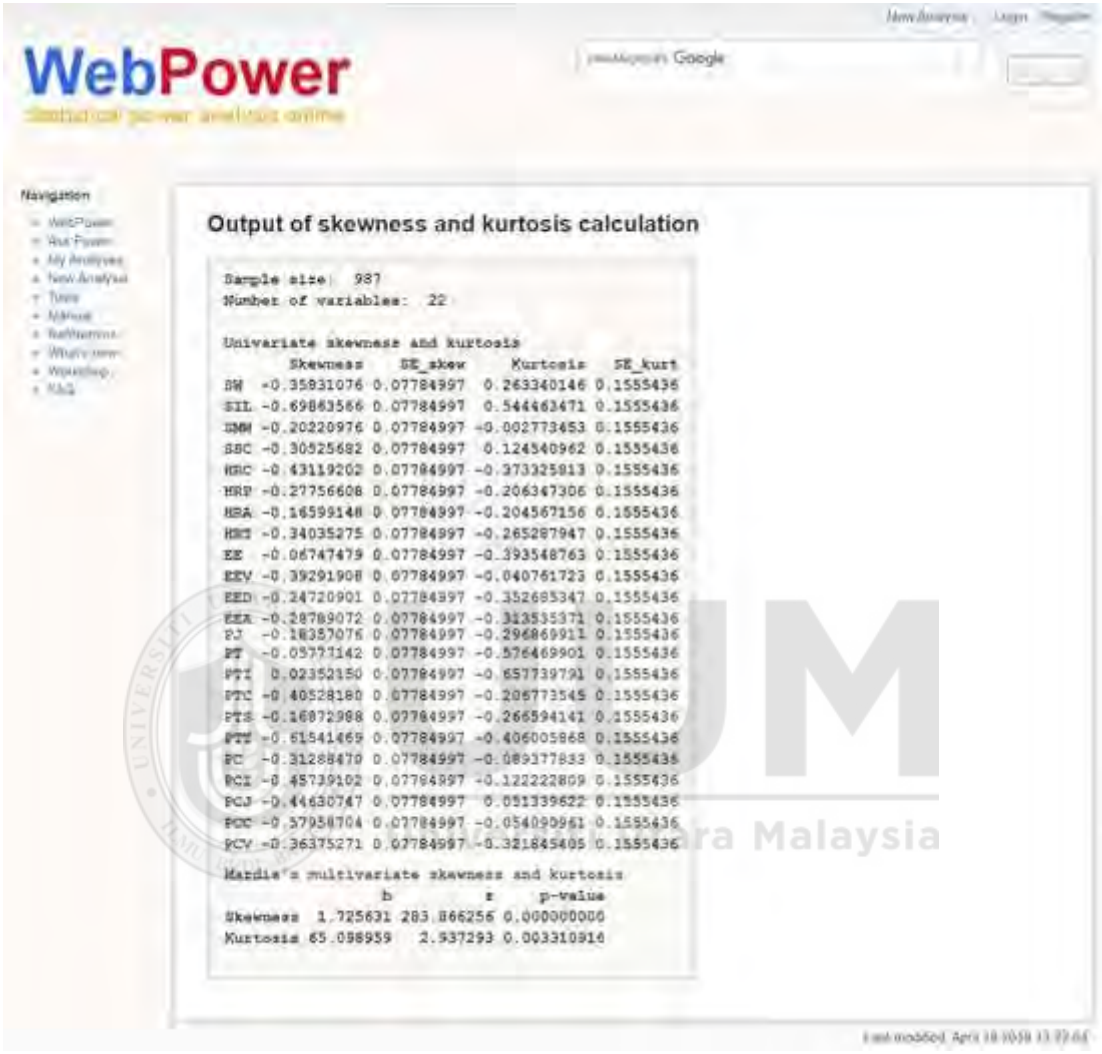
***INTRODUCTION TO POPULATION GENETICS*, Table D.1**

APPENDIX 9: Summary of Outliers Detection

No	Case ID	Univariate Outliers Frequency	Mahalanobis distance (D^2)
1	620	-	23.224
2	994	-	22.835
3	713	-	22.710
4	420	-	22.696
5	977	-	20.705
6	1002	-	20.273
7	295	-	18.951
8	785	-	18.895
9	814	-	18.715
10	38	-	18.388
11	96	-	18.380
12	924	1	18.269
13	661	-	18.266
14	646	-	18.043
15	752	-	17.812
16	257	-	17.686
17	48	1	17.433
18	614	-	16.919
19	10	-	16.743
20	21	-	16.313
21	349	-	16.129
22	665	-	15.792
23	984	-	15.790
24	667	-	15.742
25	769	-	15.591
26	110	-	15.580
27	983	-	15.524
28	127	-	15.198
29	95	-	15.156
30	283	-	15.153
31	236	-	15.121
32	953	-	15.018
33	253	-	15.014
34	822	-	14.888
35	651	-	14.840
36	629	-	14.732
37	359	-	14.716
38	778	-	14.639
39	209	-	14.442
40	117	-	14.374
41	956	-	14.257
42	946	-	14.216
43	951	-	14.102
44	201	-	14.078
45	105	-	14.069
46	389	-	14.055

47	992	-	14.013
48	608	-	13.913
49	122	-	13.827
50	786	-	13.644
51	985	-	13.582
52	939	-	13.469
53	45	-	13.391
54	831	-	13.315
55	154	-	13.278
56	358	-	13.150
57	148	-	13.102
58	438	-	12.929
59	921	-	12.762
60	22	-	12.686
61	688	-	12.628
62	581	-	12.600

APPENDIX 10: WebPower Output



WebPower

Navigation

Output of skewness and kurtosis calculation

```
Sample size:  987
Number of variables:  22

Univariate skewness and kurtosis
       Skewness    SE_skew     Kurtosis   SE_kurt
SW  -0.35831076 0.07784997  0.263340146 0.1555436
SIL -0.69863566 0.07784997  0.544463471 0.1555436
SMM -0.20220976 0.07784997 -0.002773453 0.1555436
SSC -0.30525682 0.07784997  0.124540962 0.1555436
HRC -0.43119202 0.07784997 -0.373325813 0.1555436
HRP -0.27756608 0.07784997 -0.206347306 0.1555436
HRA -0.16599148 0.07784997 -0.204567156 0.1555436
HRT -0.34035275 0.07784997 -0.265287947 0.1555436
EE  -0.06747479 0.07784997 -0.393548763 0.1555436
EEV -0.39291908 0.07784997 -0.040761723 0.1555436
EED -0.24720901 0.07784997 -0.352685347 0.1555436
EEA -0.28789072 0.07784997 -0.313535371 0.1555436
PJ  -0.18357076 0.07784997 -0.296869911 0.1555436
PT  -0.05777142 0.07784997 -0.576469901 0.1555436
PTI  0.02352150 0.07784997 -0.657739791 0.1555436
PTC -0.40528180 0.07784997 -0.206773545 0.1555436
PTS -0.16872998 0.07784997 -0.266594141 0.1555436
PTE -0.61541469 0.07784997 -0.406005868 0.1555436
PC  -0.31288470 0.07784997 -0.089177833 0.1555436
PCI -0.45739102 0.07784997 -0.122222809 0.1555436
PCJ -0.44630747 0.07784997  0.051339622 0.1555436
PCC -0.57958704 0.07784997 -0.054090961 0.1555436
PCV -0.36375271 0.07784997 -0.321845405 0.1555436

Mardia's multivariate skewness and kurtosis
                b         z    p-value
Skewness  1.725631 283.866256 0.000000000
Kurtosis 65.098959   2.937293 0.003310916
```

APPENDIX 11: Descriptive Nurses

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	55	5.6	5.6	5.6
	Female	932	94.4	94.4	100.0
	Total	987	100.0	100.0	

Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	339	34.3	34.3	34.3
	Married	639	64.7	64.7	99.1
	Others	9	.9	.9	100.0
	Total	987	100.0	100.0	

Ethnicity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Malay	844	85.5	85.5	85.5
	Chinese	35	3.5	3.5	89.1
	Indian	52	5.3	5.3	94.3
	Others	56	5.7	5.7	100.0
	Total	987	100.0	100.0	

Highest Education Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Diploma	987	100.0	100.0	100.0

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Age	987	23	57	31.98	6.351
Organization Tenure	987	1	29	6.01	4.647
Job Tenure	987	1	29	7.41	5.620
Valid N (listwise)	987				

Department

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Medical	259	26.2	26.2	26.2
	Surgical	132	13.4	13.4	39.6
	Orthopedic	112	11.3	11.3	51.0
	Pediatric	139	14.1	14.1	65.0
	Obstetrics & Gynecology	118	12.0	12.0	77.0
	Emergency	35	3.5	3.5	80.5
	Critical Care/ ICU	61	6.2	6.2	86.7
	Operation Theatre	3	.3	.3	87.0
	Multidisciplinary Unit	23	2.3	2.3	89.4
	Anesthesiology	37	3.7	3.7	93.1
	Oncology	23	2.3	2.3	95.4
	Ophthalmology	45	4.6	4.6	100.0
	Total	987	100.0	100.0	

APPENDIX 12: Descriptive Sister

S(Gender)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	331	100.0	100.0	100.0

S(Marital Status)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	21	6.3	6.3	6.3
	Married	305	92.1	92.1	98.5
	Others	5	1.5	1.5	100.0
	Total	331	100.0	100.0	

S(Ethnicity)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Malay	254	76.7	76.7	76.7
	Chinese	38	11.5	11.5	88.2
	Indian	20	6.0	6.0	94.3
	Others	19	5.7	5.7	100.0
	Total	331	100.0	100.0	

S(Education)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Diploma	286	86.4	86.4	86.4
	Degree	42	12.7	12.7	99.1
	Master	3	.9	.9	100.0
	Total	331	100.0	100.0	

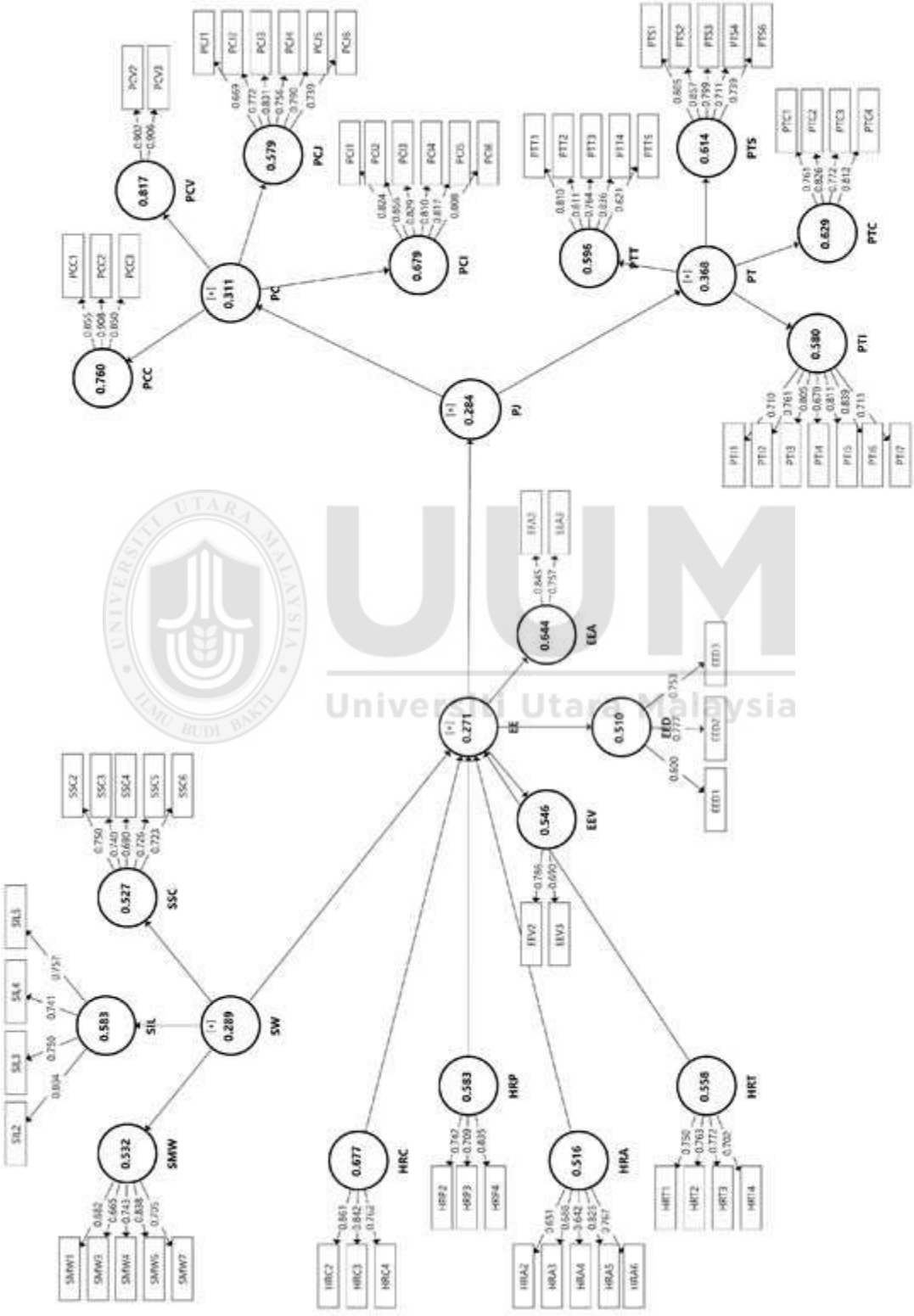
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
S(Age)	331	34	59	45.73	6.225
S(Organization Tenure)	331	3	35	15.20	6.689
S(Job Tenure)	331	8	35	20.74	6.004
Valid N (listwise)	331				

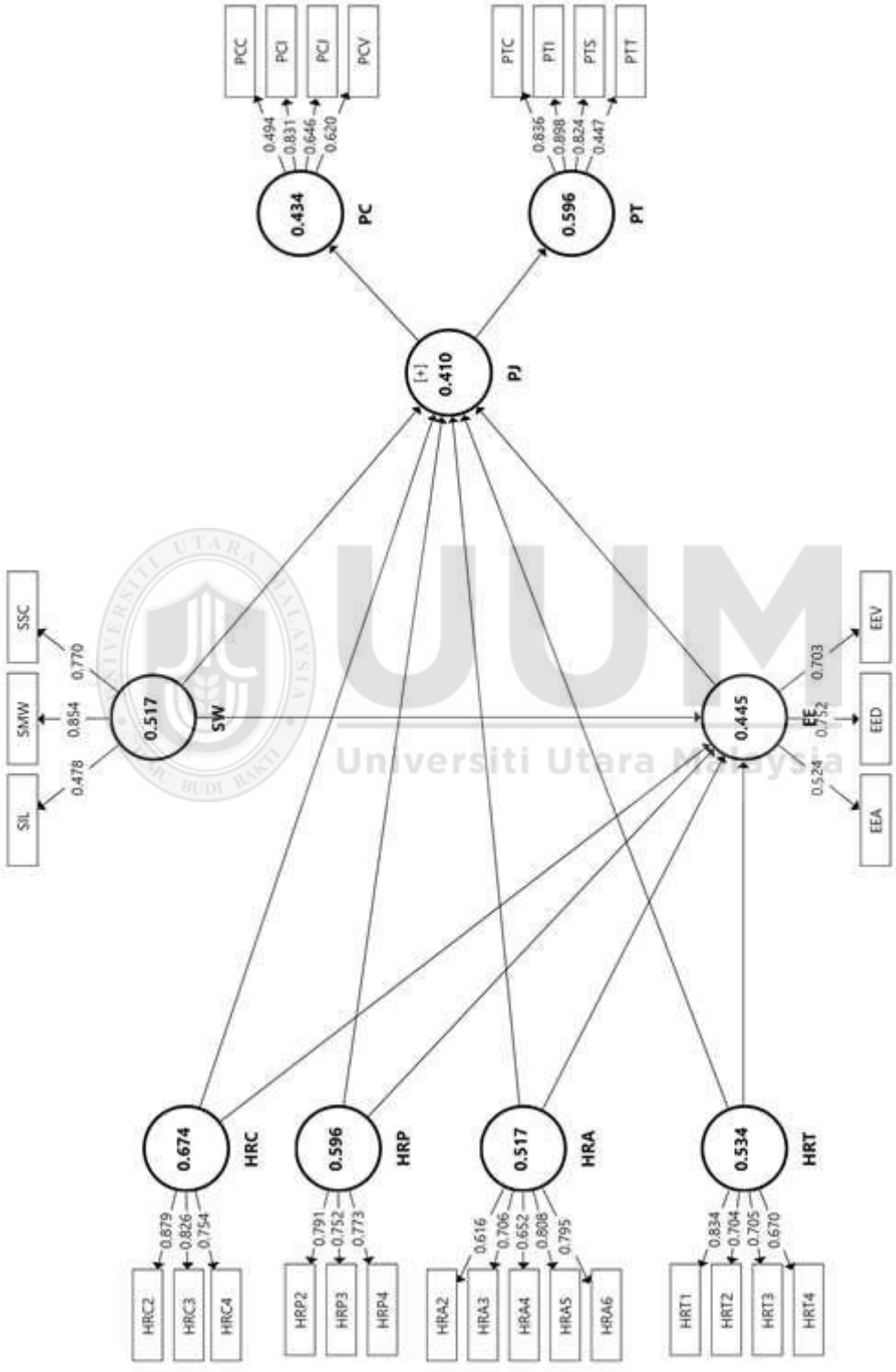
S(Department)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Medical	79	23.9	23.9	23.9
	Surgical	47	14.2	14.2	38.1
	Orthopedic	39	11.8	11.8	49.8
	Pediatric	46	13.9	13.9	63.7
	Obstetrics & Gynecology	37	11.2	11.2	74.9
	Emergency	12	3.6	3.6	78.5
	Critical Care/ ICU	19	5.7	5.7	84.3
	Operation Theatre	1	.3	.3	84.6
	Multidisciplinary Unit	9	2.7	2.7	87.3
	Anesthesiology	15	4.5	4.5	91.8
	Oncology	10	3.0	3.0	94.9
	Ophthalmology	17	5.1	5.1	100.0
	Total	331	100.0	100.0	

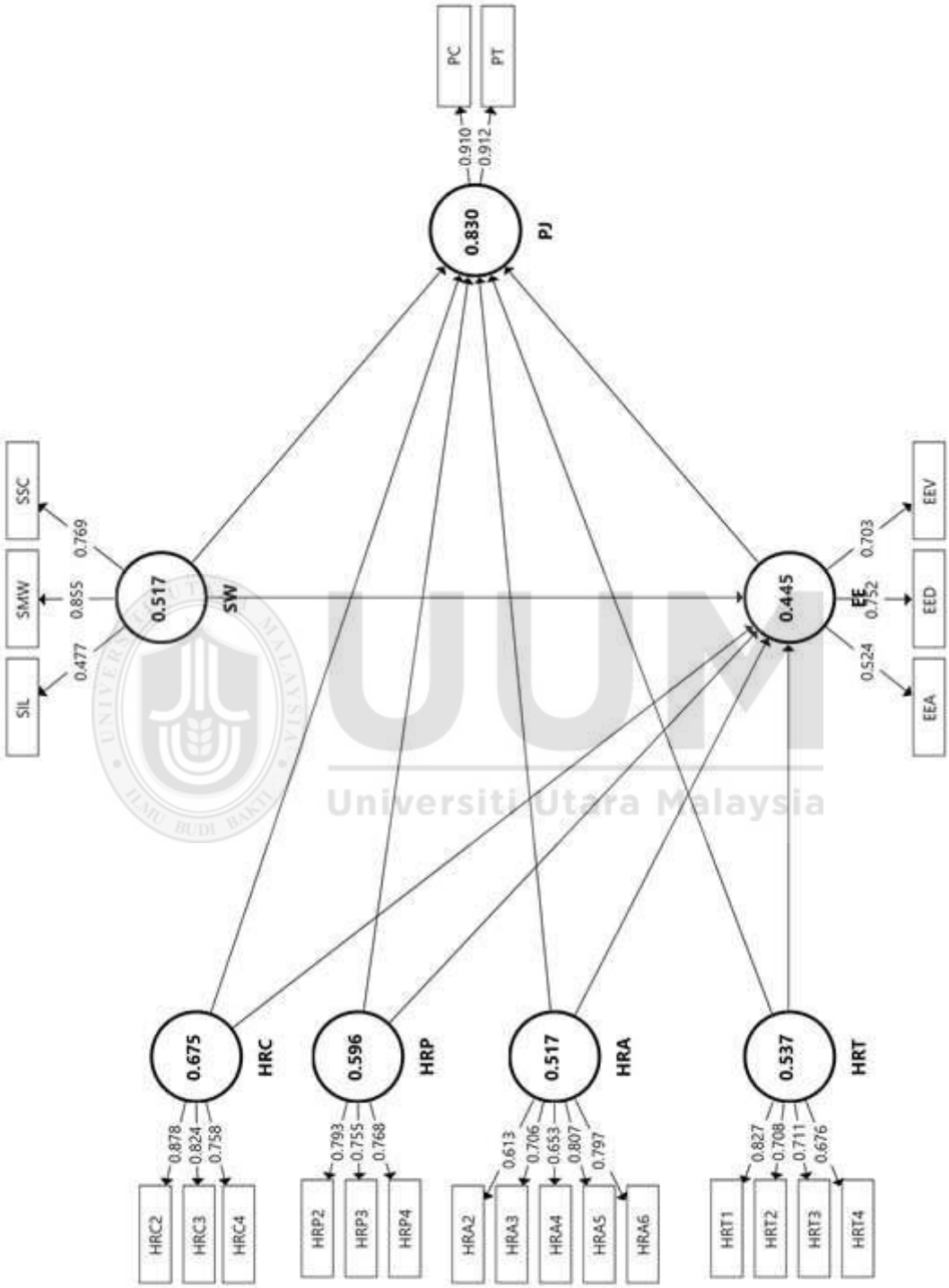
APPENDIX 13: Measurement Model Stage 1



APPENDIX 14: Measurement Model Stage 2



APPENDIX 15: Measurement Model Stage 3



APPENDIX 16: PLS Algorithm Output (Construct Reliability & Validity)

Construct reliability and validity (Stage 1)

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
EE	0.502	0.695	0.271
EEA	0.450	0.783	0.644
EED	0.516	0.756	0.510
EEV	0.171	0.706	0.546
HRA	0.780	0.841	0.516
HRC	0.770	0.863	0.677
HRP	0.665	0.807	0.583
HRT	0.747	0.835	0.558
PC	0.841	0.868	0.311
PCC	0.842	0.904	0.760
PCI	0.905	0.927	0.679
PCJ	0.854	0.892	0.579
PCV	0.776	0.899	0.817
PJ	0.922	0.930	0.284
PT	0.908	0.920	0.368
PTC	0.803	0.871	0.629
PTI	0.878	0.906	0.580
PTS	0.842	0.888	0.614
PTT	0.828	0.880	0.596
SIL	0.762	0.848	0.583
SMW	0.777	0.849	0.532
SSC	0.776	0.848	0.527
SW	0.803	0.845	0.289

Construct reliability and validity (Stage 2)

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
EE	0.646	0.702	0.445
HRA	0.780	0.841	0.517
HRC	0.770	0.861	0.674
HRP	0.665	0.816	0.596
HRT	0.747	0.820	0.534
PC	0.417	0.748	0.434
PJ	0.757	0.830	0.410
PT	0.755	0.848	0.596
SW	0.522	0.753	0.517

Construct reliability and validity (Stage 3)

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
EE	0.646	0.702	0.445
HRA	0.780	0.841	0.517
HRC	0.770	0.861	0.675
HRP	0.665	0.816	0.596
HRT	0.747	0.822	0.537
PJ	0.795	0.907	0.830
SW	0.522	0.753	0.517

APPENDIX 17: HTMT Ratio
Stage 1

	EE	EEA	EED	EEV	HRA	HRC	HRP	HRT	PC	PCC	PCI	PCJ	PCV	PJ	PT	PTC	PTI	PTS	PTT	SIL	SMW	SSC	SW
EE																							
EEA	1.399																						
EED	1.543	0.668																					
EEV	1.725	0.227	0.371																				
HRA	0.275	0.157	0.249	0.242																			
HRC	0.237	0.188	0.159	0.238	0.526																		
HRP	0.308	0.209	0.259	0.261	0.476	0.559																	
HRT	0.266	0.176	0.260	0.295	0.207	0.356	0.197																
PC	0.551	0.167	0.444	0.881	0.183	0.154	0.175	0.281															
PCC	0.288	0.324	0.695	0.388	0.232	0.085	0.191	0.093	0.440														
PCI	0.347	0.048	0.345	0.497	0.103	0.152	0.104	0.267	0.916	0.118													
PCJ	0.371	0.068	0.309	0.646	0.065	0.077	0.142	0.140	0.866	0.052	0.386												
PCV	0.431	0.065	0.338	0.833	0.128	0.021	0.079	0.164	0.534	0.020	0.316	0.203											
PJ	0.546	0.132	0.446	0.888	0.181	0.127	0.145	0.317	0.974	0.272	0.844	0.619	0.539										
PT	0.468	0.069	0.396	0.820	0.156	0.092	0.104	0.299	0.691	0.117	0.679	0.361	0.469	1.014									
PTC	0.374	0.048	0.274	0.782	0.124	0.062	0.069	0.220	0.632	0.103	0.668	0.297	0.386	0.869	0.917								
PTI	0.445	0.091	0.374	0.750	0.137	0.051	0.074	0.273	0.643	0.118	0.646	0.307	0.452	0.925	0.997	0.816							
PTS	0.446	0.063	0.360	0.840	0.129	0.062	0.088	0.239	0.598	0.107	0.510	0.332	0.441	0.846	0.908	0.628	0.762						
PTT	0.191	0.079	0.183	0.212	0.098	0.087	0.100	0.199	0.298	0.037	0.312	0.151	0.180	0.539	0.535	0.287	0.310	0.259					
SIL	0.264	0.181	0.253	0.142	0.152	0.128	0.063	0.264	0.154	0.087	0.134	0.076	0.076	0.187	0.165	0.123	0.147	0.161	0.151				
SMW	0.386	0.106	0.356	0.474	0.701	0.317	0.289	0.219	0.413	0.322	0.302	0.167	0.334	0.445	0.407	0.308	0.396	0.328	0.226	0.246			
SSC	0.361	0.201	0.331	0.316	0.668	0.668	0.449	0.258	0.283	0.142	0.214	0.139	0.167	0.298	0.282	0.281	0.243	0.206	0.139	0.218	0.559		
SW	0.465	0.235	0.432	0.437	0.728	0.472	0.380	0.335	0.387	0.259	0.302	0.177	0.267	0.453	0.406	0.333	0.366	0.336	0.236	0.749	0.987	0.976	

HTMT Ratio (Stage 2)

	EE	HRA	HRC	HRP	HRT	PC	PJ	PT	SW
EE									
HRA	0.304								
HRC	0.286	0.526							
HRP	0.365	0.476	0.559						
HRT	0.329	0.207	0.359	0.137					
PC	0.886	0.298	0.194	0.245	0.390				
PJ	0.783	0.215	0.132	0.159	0.346	1.535			
PT	0.628	0.169	0.098	0.110	0.325	1.050	1.212		
SW	0.677	0.884	0.573	0.450	0.418	0.710	0.597	0.538	

HTMT Ratio (Stage 3)

	EE	HRA	HRC	HRP	HRT	PJ	SW
EE							
HRA	0.304						
HRC	0.286	0.526					
HRP	0.365	0.476	0.559				
HRT	0.329	0.207	0.359	0.137			
PJ	0.719	0.177	0.123	0.142	0.333		
SW	0.677	0.884	0.573	0.450	0.418	0.545	

APPENDIX 18: Descriptive Statistics

Descriptive Statistics

	N	Mean	Std. Deviation
mSW	987	5.73673	.448425
mSIL	987	5.92097	.642448
mSMW	987	5.67300	.621535
mSSC	987	5.61621	.651773
mHRC	987	5.41472	.772685
mHRP	987	5.42857	.661357
mHRA	987	5.55968	.615120
mHRT	987	5.4126	.74271
mEE	987	5.42700	.522659
mEEV	987	5.63576	.798584
mEED	987	5.45525	.726441
mEEA	987	5.18997	.863169
mPJ	987	5.59008	.495201
mPT	987	5.68382	.585987
mPTI	987	5.81691	.582224
mPTC	987	5.90198	.736752
mPTS	987	5.58663	.804641
mPC	987	5.49633	.532750
mPTT	987	5.42979	.029486
mPCI	987	5.69352	.822845
mPCJ	987	5.03175	.895865
mPCC	987	5.84802	.867412
mPCV	987	5.41202	.932231
Valid N (listwise)	987		

APPENDIX 19: Full Collinearity Test for Common Method Variance

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.601	.016		38.308	.000		
	SW	-.006	.023	-.011	-.251	.802	.497	2.014
	HRC	.002	.020	.005	.123	.902	.720	1.388
	HRP	-.006	.022	-.012	-.285	.776	.547	1.828
	HRA	.020	.021	.038	.916	.360	.584	1.713
	HRT	-.004	.018	-.009	-.247	.805	.807	1.238
	EE	.014	.018	.027	.765	.445	.814	1.229
	PJ	-.008	.022	-.017	-.367	.714	.500	2.000

a. Dependent Variable: Random

APPENDIX 20: Assessment of Model

Inner VIF

	EE	PJ
EE		1.124
HRA	1.833	1.836
HRC	1.399	1.399
HRP	1.246	1.259
HRT	1.119	1.131
PJ		
SW	1.796	1.884

R^2

	R Square	R Square Adjusted
EE	0.140	0.136
PJ	0.306	0.302

f^2

	EE	PJ
EE		0.156
HRA	0.002	0.026
HRC	0.000	0.026
HRP	0.035	0.000
HRT	0.037	0.053
PJ		
SW	0.049	0.065

APPENDIX 21: Blindfolding & PLSpredict Output

Q^2

	SSO	SSE	Q^2 (=1-SSE/SSO)
EE	2961.000	2831.951	0.044
HRA	4935.000	4935.000	
HRC	2961.000	2961.000	
HRP	2961.000	2961.000	
HRT	3948.000	3948.000	
PJ	1974.000	1483.107	0.249
SW	2961.000	2961.000	

PLSpredict: Latent Variable Q square predict

	RMSE	MAE	Q^2_predict
EE	0.951	0.759	0.099
PJ	0.904	0.714	0.187

PLSpredict: Manifest Variable Q square predict (PLS Model)

	RMSE	MAE	MAPE	Q^2_predict
PT	0.893	0.713	infinite	0.203
PC	0.926	0.727	266.007	0.145

PLSpredict: Manifest Variable Q square predict (LM Model)

	RMSE	MAE	MAPE	Q^2_predict
PT	0.910	0.730	infinite	0.173
PC	0.930	0.732	253.931	0.137

APPENDIX 22: Bootstrapping Output (Direct Effects)

Path coefficients with *t* statistics (direct effects)

	Original Sample (O)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
EE -> PJ	0.349	0.029	12.028	0.000
HRA -> EE	-0.052	0.038	1.369	0.086
HRA -> PJ	0.086	0.036	2.373	0.009
HRC -> EE	-0.013	0.033	0.379	0.352
HRC -> PJ	0.076	0.034	2.256	0.012
HRP -> EE	0.108	0.035	3.065	0.001
HRP -> PJ	0.002	0.029	0.082	0.467
HRT -> EE	0.103	0.032	3.230	0.001
HRT -> PJ	0.204	0.028	7.342	0.000
SW -> EE	0.280	0.040	7.002	0.000
SW -> PJ	0.292	0.036	8.179	0.000

Path coefficients with confidence interval (direct effects)

	Original Sample (O)	Bias	5.0%	95.0%
EE -> PJ	0.349	0.001	0.298	0.393
HRA -> EE	-0.052	0.005	-0.120	0.007
HRA -> PJ	0.086	0.003	0.029	0.148
HRC -> EE	-0.013	0.002	-0.071	0.039
HRC -> PJ	0.076	0.001	0.023	0.134
HRP -> EE	0.108	0.000	0.049	0.166
HRP -> PJ	0.002	0.000	-0.046	0.050
HRT -> EE	0.103	0.002	0.048	0.154
HRT -> PJ	0.204	0.001	0.156	0.248
SW -> EE	0.280	-0.002	0.216	0.346
SW -> PJ	0.292	-0.003	0.236	0.353

APPENDIX 23:Bootstrapping Output (Indirect Effects)

Path coefficients with *t* statistics (indirect effects) Appendix 20

	Original Sample (O)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
HRA -> EE -> PJ	-0.021	0.017	1.255	0.210
HRC -> EE -> PJ	-0.007	0.015	0.461	0.644
HRP -> EE -> PJ	0.049	0.016	3.182	0.001
HRT -> EE -> PJ	0.045	0.014	3.264	0.001
SW -> EE -> PJ	0.124	0.020	6.165	0.000

Path coefficients with confidence interval (indirect effects)

	Original Sample (O)	Bias	2.5%	97.5%
HRA -> EE -> PJ	-0.021	0.003	-0.058	0.009
HRC -> EE -> PJ	-0.007	0.001	-0.035	0.022
HRP -> EE -> PJ	0.049	0.000	0.019	0.079
HRT -> EE -> PJ	0.045	0.002	0.018	0.072
SW -> EE -> PJ	0.124	-0.001	0.087	0.165