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The Impact of Employee Engagement on Organizational Performance: A Study on Malaysian Pharmaceutical Organization

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Abstract

Organizational performance and employee engagement are vital elements for sustainability of business entities. In recent years, many organizations had suffered heightened turnover rate and pharmaceutical firms are no exceptions to it. Many pharmaceutical manufacturers have intensified their productions in achieving a faster response to the Nobel Coronavirus (COVID-19), where employee engagement has begun to suffer with high turnover rate. Hence, the current study investigates the impact of employee engagement on organizational performance in a local pharmaceutical manufacturing company. It is important as engaged employees cultivates good work culture, retention rate and contribute towards enhancement of business functioning, especially in pandemic-stricken environment. Online survey method was employed for data collection and it was analyzed with IBM Statistics Version 26. The study reported that working environment and training and development contribute positively towards employee engagement and thus, to organizational performance. Meanwhile, it revealed statistically non-significant relationship between rewards and recognition with employee engagement. Also, a significant partial mediation effect of employee engagement was found between factors of employee engagement and organizational performance. In future studies, other factors can be studied with respect to local and international pharmaceutical organizations with broader sample size to confirm the casual relationship found in this study.

Keywords: Employee Engagement, Organizational Performance, Work Environment, Training and Development, Rewards and Recognition

Introduction

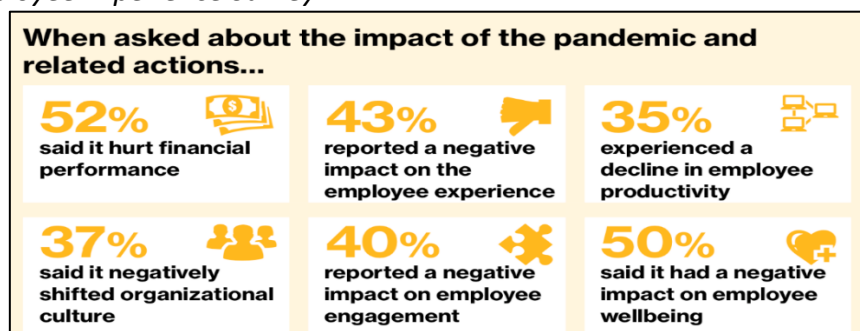
Over the years, several studies have been conducted in the arena of workforce management, nevertheless organizational performance and employee engagement has always been a palpable topic of discussion. Organizational performance is referred as a measure of an organization's position in the marketplace and its ability to meet the stakeholder's needs (Mason & Griffin, 2003; Lo et al., 2015). In most cases, it can be through its financial and non-

financial components. Some of the non-financial performance components are delivery of service, quality of service, efficiency and effectiveness, service outcomes, satisfaction of customer and employee. While, the financial performances of a firm are measured from return of investment, sales growth, assets, liquidity, leverage, market share and etc. Different types of organizations adopt different performance measures based on their business priorities. Organizational performance is essential in aligning employees, resources and systems to meet firm's strategic objectives (McKinsey and Company, 2017).

A sustainable organizational performance can be achieved with an engaged employee who stay dedicated to the organization. An organization that shows high performance will not necessarily have good employee engagement, but an organization that has highly engaged employees will always have a sustained performance over prolonged time. Employee engagement was conceptualized by Kahn in 1990 as harnessing of working member's selves to their employment role and express themselves physically, cognitively, emotionally and mentally during role performance (Kahn, 1990). Also, employee engagement can be discoursed as employees' emotional connection to the company, their willingness to go beyond the status quo and to show dedication by staying invested in their job (Qualtrics, 2020). It has been reported that businesses with engaged employees are 21% more profitable and scored 17% of more productivity (Gallup, 2017). This is further supported by Qualtrics 2020 report, stating that organizations with hugely engaged workers can achieve 2.5 times more revenue growth and more likely to exceed performance expectations by 10% (Qualtrics, 2020). An organization which focuses on employee engagement relishes the benefits of more productivity, have good company culture, improved retention rate and gain extra profitability. Thus, employee engagement is an essential tool and it positively contributes to organizational performances.

In addition, employee engagement, productivity and sustainable business performance is directly linked to employee experience that shaped by organizations. The employers have started to recognize the importance of improving employee experience as they face issues of turnover and employee engagement adapting to the new reality. The employers have started to recognize the importance of improving employee experience as they face issues of turnover and employee engagement adapting to the new reality. The below presented is the statistics on employee experience on impact of the pandemic that depicts about half of the employee population face financial and well-being issues.

Figure 1 *Employee Experience Survey*



(Source: Willis Towers Watson, 2021)

As per Willis Towers Watson (2021) employee experience survey, one of the key highlights are that during the past year, organizations awareness has shifted towards the importance of the employee experience, where the employers view that employee experience drives the engagement by 81%, and 80% of employee wellbeing, 79% of productivity and 78% of overall business performance. It also been predicted that enhancing employee experience will continue to be a priority for organizations at up to 92% over next three years (Willis Towers Watson, 2021). This will be an increase of about 40% in prioritizing employee experience compared to pre-pandemic situation. However, it will take time and require a sharp focus on the key areas such as work, wellbeing and total rewards adapting to the new reality. Thus, this shows that employee engagement is strongly connected to the organizational performance and employers around the globe have started taking initiatives towards improving it.

Knowing the critical importance and benefits of employee engagement towards organizational performance, many researchers have explored the drivers which contributes to it. Recognition for good work, clear link between work and company purposes, opportunities for learning and development, career development and senior leadership's confidence in making the right decisions for the company are seen to boost the employee engagement. Studies also showed that approaching employee engagement from new perspective such as job-crafting, revamping the job descriptions, encouraging employee resource groups, offering flexibility in trying new tasks and granting more autonomy can utter a promising improvement. Thus, it is important for organizations to identify the factors of employee engagement and to design ways to implement them in harnessing successful growth and sustainable performance.

Further, the calamity of COVID-19 has raised the need for organizations to relook into their performance scores and to stay engaged with a lot of changes happening around. The employees in worldwide organizations are uncertain of their career outlook navigating through pandemic added with less focus being placed on well-being and work-life balance. This had caused the performances of many organizations to be in turmoil with uncertainty and facing disruptions in many operations such as manufacturing, productions and supply chain. Even, after organizations performances have been rebounded post COVID-19, the great resignation had hit the labor market, where employees are leaving their organizations and the statistics for employee engagements across the globe also have reduced below the pre-COVID level. Therefore, it is vital to study the factors that contributing to employee engagement which promotes organizational performance post pandemic. In addressing the above discussed matter, this research will be focused on identification of employee engagement factors and its impact on organizational performance. It has also further discussed the mediating role of employee engagement towards organizational performance.

Background of Study

The preliminary motivation of the study revolves around Putra Pharma Sdn. Bhd., a pharmaceutical manufacturing organization based in Malaysia. Putra Pharma was established in 2011 and started its business operation with Research and Development center, employing about 300-350 workers of highly skilled and diversified team. The company focused on developing products that meet global quality for pharmaceutical standards with the purpose of bringing inexpensive medicine to the world. The pay scale of the company is one of the

competitive among the local industry which was designed to attract individuals with pronounced idea and to retain the existing pool of talent. The company offers wide variety of benefits such as extensive employee insurance plan, learning and growth opportunities with training programs, employee fun activities that organized by the internal recreational team of the company and several other initiatives on building good company culture and engagements.

The organization also seen as a good platform for fresh graduates to gain quick knowledge, experience and hands-on practices working directly with the field experts who are mostly consist of talents from various countries. However, despite management's effort in boosting the company's performance and employee engagement, turnover rate of the company is getting high, and employees were observed to be disconnected with their job. Starting last year, the attrition rate of the company was witnessed to be higher than the ideal turnover rate of 10%. It was also increasingly difficult to recruit new talents as it consumes time and energy to train them and the company do not spare enough budget to do so. As a consequence, many operational functions including the extra workload had to be managed by existing employees and the company suffers overall lower productivity and poorer organizational performance. A survey was done by the company's management on addressing employee engagement and the results revealed that employee engagement score for employees who worked for 3-5 years were less than 30% and about 70% were disengaged. Meanwhile, for employees who worked more than 5 years, employee engagement score was only 35%, where about 65% employees were disengaged. This statistic showed that employees are not happy with the company. This led to investigate the situation of Putra Pharma by analyzing organizational performance with mediating role of employee engagement.

Generally, some of contemporary issues faced by pharmaceutical companies are to stay ahead in demand forecasting to support the market, assessing price fluctuation and risk management with process and product involved in manufacturing, development, and distribution of the product (businesswire, 2020). Along the new world economic growth, the corporations such as Putra Pharma did not realize the amount of stress that had been induced on workforce to stay competitive in the global market which potentially can cause disengagements among employees. Also, from the lens of current economic situation where the world stumbles towards COVID-19 recovery, many experts have already predicted the surge for employee voluntary departure (Harvard business review, 2021) and this urges the need to re-examine the factors of employee engagement and organizational performance with regards to new world economy.

On the scale of global employee engagement rate, Malaysia stands at 1% above the global average with an attrition rate of 16% ranking at the 8th place (Qualtrics, 2020). This disconcerting statistic proves the need to revisit and understand the underlying problems of employee engagement and organizational performance among industries in Malaysia. Especially, employee engagement in the essential service sectors such as healthcare sector had caught great attention as it scored second highest attrition rate of 20% whereby the employees only intend to stay in an organization for less than a year (Qualtrics, 2020). This has been observed even after some of the pharmaceutical companies implement employee engagement strategies in cultivating performance and achieving long term growth (Annual Report Pharamaniaga Berhad, 2019).

In terms of the subsector productivity, the growth of chemicals and chemical products that includes pharmaceuticals has declined to 1.2% compared to 3.7% in the previous year (Malaysian Productivity Report, 2019). This shows that with declining employee engagement rate, the labor productivity and organization performance drops. Further, in a study done by Gallup's State of the Global Workplace in 2019 revealed that only about 15% of employees are engaged in the workplace (Gallup, 2019). On top of it, the great resignation is predicted to be continuing throughout 2022 (CNBC, 2022). Thus, to counteract the incoming wave of employee turnover and dropping employee engagement scores, organizations such as Putra Pharma have to move ahead and well-equip themselves with profound strategies in cultivating employee engagements in achieving sustainable organizational performance.

Moreover, studying employee engagements and organizational performance in pharmaceutical industry in Malaysia is vital due to the role it plays in helping the company to be more productive and achieve the wide-known corporate goals such as improvement of medications quality, reduction of occurrence of diseases incidence, improvement on diseases treatment, and enhancement the people's life quality. The presence of a strong local pharmaceutical industry with the support of government can help to reduce the spending on medicines. Among some of the major local pharmaceutical companies in Malaysia are Pharmaniaga Manufacturing Berhad, Hovid Berhad, Duopharma Biotech Berhad and Kotra Pharma (M) Sdn Bhd. While, Biocon Sdn. Bhd. (India), Oncogen Pharma (Malaysia) Sdn. Bhd., Y.S.P Industries (M) Sdn Bhd (Taiwan), Sterling Drug (M) Sdn Bhd, Ranbaxy (M) Sdn Bhd (India), Xepa-Soul Pattinson (M) Sdn Bhd (Singapore) are some of the oversea companies with manufacturing facility based in Malaysia (MIDA, 2020). The industry's main contribution is in meeting the complex healthcare demands of populations through innovative research.

As per Precedence Research (2021), the international market for pharmaceuticals is projected to grow at an annual rate of 5.7 % and the low price of generic drugs acts as substitute to branded drugs. The pharmaceutical companies are also under a lot of pressure in providing the continuous supply of medications to the health facility demands for treatment of COVID-19 patients, while some pharma companies spend tremendous amount of time on producing vaccine for the virus. In keeping up with the continuous growth of the industry and stay on par with global pharmaceutical industry standard, the local pharmaceuticals have act proactively in developing strategies that binds employee engagement with productivity and grasp good organizational performance. Hence, the current study will be focusing on factors contributing to employee engagement and thus boosting organizational performance in Putra Pharma Sdn. Bhd., a Malaysian pharmaceutical manufacturing company.

Problem Statement

Despite the concept of organizational performance been addressed with high level of attention, many scholars have yet to sufficiently deal with the situation of uncertainty reasonably (Elena-Juliana & Maria, 2016). The alarming statistical figures on organizational performance, employee engagements and attrition rate urge the need to address the issue from both national and organizational level. Observing the economic performance of Malaysia in the second quarter of 2021, even if the nation's Gross Domestic Product (GDP) has increased by 16.1%, the strong growth of the quarter is due to the low base recorded on second quarter of 2020 (DOSM, 2021). Overall, it indicates that the economic growth of the quarter is still lower than the pre-pandemic level of fourth quarter 2019. Moreover, the total

lockdown and tightened Standard Operating Procedures (SOP), and operation of only essential services caused the GDP to drop by 4% in June 2021 (Malaysian Department of Statistics, 2021).

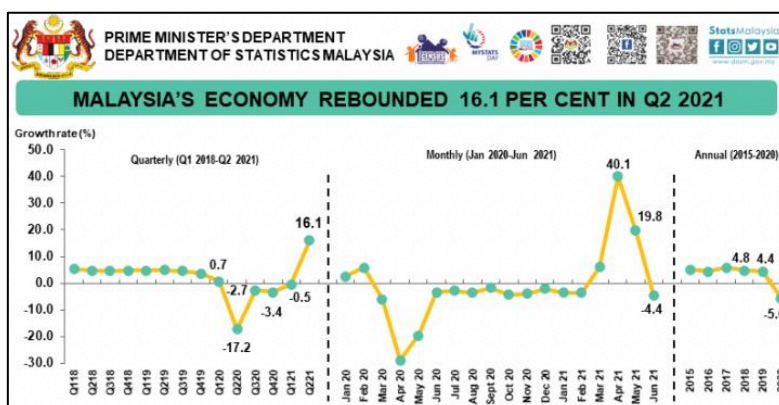


Figure 2 Malaysian Economy Annual Growth rate
(Source: Department of Statistics Malaysia, 2021)

This depicts the overall slow economic performance of the country which can be cascaded to the poor organizational performances of many start-up firms such as Putra Pharmaceutical Sdn. Bhd. However, at the organizational level, the non-financial components which contributes to organizational performance also need to be assessed together with its financial aspects. Internal environmental factors such as employee engagement plays an equal role in organizational performance as much as the external factors such as the national GDP growth and the pandemic. The non-financial aspect of performances often contributes to the long-term operational objectives of organization (Blazevic & Lievens, 2004; Prieto & Revilla, 2006). Besides, the phase of interruption that risen by pandemics and vast digitalization has raised a greater intensity to develop a new sustainable and dynamic workforce who have to be always ready to adapt themselves (Salamzadeh & Dana, 2020). It is a significant challenge for the organizations to remain competitive in the marketplace with workers of digital skills gap with rising pressures to adapt within a short span of time (Prasanna et al. 2019; Yew & Chan, 2019). On the other hand, in the competitive world, it is increasingly difficult for the organizations to retain skilful employee with declining rate of employee engagement and organizational performance. Among the many vital factors that positively adding to organizational performance, employee engagement plays a key role and the global pandemic has imposed more challenges for the organizations to rebound. According to Kincentric (2021) report, the global employee engagement is observed to be relatively flat during last half of 2020 and first quarter of 2021 (Kincentric, 2020, 2021). However, in the second quarter of 2021, the trend regressed below pre-COVID levels of engagement representing a turning point for organizations. Many changes were occurring worldwide, and the employees became unsure of the sustainability of their job with their well-being and work-life balance being in turmoil.

In the limelight of pandemic, as an essential business, pharmaceutical companies faced enormous pressure to deliver and generally the employees in drug manufacturing have to work onsite. Many drug manufacturers faced shortages of manpower to work onsite and with the growing pressure at work, they focused on employee engagement tools such as workplace culture, wellness programs, rewards and recognition programs and promotions as

retention strategies (Eve Glicksman, 2021). In Malaysian pharmaceutical market context, companies such as Pharmaniaga and Duopharma Biotech Bhd. continued to enjoy investors' attention with value appreciation over 127% and 117% after they have been identified for fill-and-finish work of the vaccine by the government (TheStar, 2021). Even if the financial performances of such organizations are booming, it raises concerns on the non-financial aspects as it depicts the huge pressure and demand being placed on these drug manufacturers. Hence, it is important to analyze the mediating role of employee engagement and organizational performance of the pharmaceutical industry in Malaysia moving through the pandemic.

Many researchers have explored the employee engagement factors in pharmaceutical industry across different geographical regions, but no trace of studies been found in Malaysian pharmaceutical context. In 2014, Prof. Anu Gupta and Prof. Priyanka Shah studied on role of compensation attitude in building employee engagement in pharmaceutical sector across the globe. Few similar studies have been conducted on pharmaceutical companies in Thailand by exploring the influence of emotional demands, supervisor support, and training opportunities on work engagement (Sawasdee et al., 2020; Tirastittam et al., 2020). Thus, in this research employee engagement as mediating role towards organizational performance in Malaysian pharmaceutical company will be explored.

In addition, the factors which contributes significantly towards employee engagement varies across organization and industry. A study on banking sector by Chaudhry et al (2017) discusses on impact of working environment and training and development on organization performance and employee engagement (Chaudhry et al., 2017). While, in a research done on Thai private higher education, the authors found that job satisfaction and employee engagement have direct positive effect with respect to factors such as collaboration of teamwork, growth and development, and support and recognition (Tepayakul et al., 2018). In a different study done on textile industry, internal communication and reward and recognition are found to be significantly related to employee engagement except for work-life balance. As determinants of employee engagements differs across industries, there is a need to understand the factors which are specific to the pharmaceutical company in Malaysia.

Moreover, there are inconsistencies found in relationship and impacts of factors on employee engagement, where some studies stated positive relationship and others reported otherwise. As such, rewards and recognition were reported to contribute positively to employee engagement in tourism industry (Jagannathan, 2014; Soliman and Wahba, 2019). Meanwhile, in a study by Almotawa and Shaari (2020) found a negative relationship between employee engagement and rewards and recognition in Saudi Arabian Public Healthcare (Almotawa and Shaari, 2020). The mixed findings warrant a need for further investigation to be conducted on the role of employee engagement with respect to work environment, rewards and recognition and training and development in contributing to organizational performance in the context of Malaysian pharmaceutical companies.

Research Questions

Referring to the background and problem statement discussed, the following research questions were formulated to guide this study:

- i. What are the factors contributing to employee engagement in Putra Pharmaceutical Sdn. Bhd.?
- ii. Is there a significant relationship between work environment and employee engagement in Putra Pharmaceutical Sdn. Bhd.?
- iii. Is there a significant relationship between training and development and employee engagement in Putra Pharmaceutical Sdn. Bhd.?
- iv. Is there a significant relationship between rewards and recognition and employee engagement in Putra Pharmaceutical Sdn. Bhd.?
- v. Is there a significant mediating relationship by employee engagement towards organizational performance in Putra Pharmaceutical Sdn. Bhd.?

Research Objectives

The study aims to examine the relationships between work environment, training and development, and rewards and recognition as factors of employee engagement and to evaluate the mediating role of employee engagement towards organizational performance in Putra Pharmaceutical Sdn. Bhd. during COVID-19. Thus, the specific objectives of study are:

- i. To evaluate the employee engagement factors in Putra Pharmaceutical Sdn. Bhd.
- i. To examine the impact of work environment on employee engagement in Putra Pharmaceutical Sdn. Bhd.
- ii. To examine the impact of training and development on employee engagement in Putra Pharmaceutical Sdn. Bhd.
- iii. To assess the impact of rewards and recognition on employee engagement in Putra Pharmaceutical Sdn. Bhd.
- iv. To evaluate the mediating role of employee engagement on organizational performance in Putra Pharmaceutical Sdn. Bhd.

Scope of Study

The aim of the study is to evaluate the relationship between organizational performance and work environment, training and development and rewards and recognition with mediating role of employee engagement in Putra Pharma, a Malaysian Pharmaceutical manufacturing organization. The unit of analysis for the study is the individual full-time employees in Putra Pharma. Hence, the population frame for this study is the workers of Putra Pharma. The rationale behind selection of full-time employees are the amount of time they occupy themselves with work and the strength of their commitment to the employer and role. The study only involves employees from middle management, executives and non-executives excepting top management layer who control and monitor the entire organization. This is because the factors in this study are not applicable for members of leading board who directs and governs an organization at the highest level, having the power to delegate authority and provide resources within the organization as per ISO 9001. Thus, the factors studied might not be directly applicable to them. Meanwhile, the workforce from middle management who occupy a central position in organizational hierarchies are considered as part of potential respondents. They are held responsible for implementation of plans given by senior management and ensures junior staffs fulfill their job roles (Nancy Harding, Jackie Ford, Hugh Lee, 2014). Hence, employee engagement is considered to be more impactful or appropriate to be measured from permanent employees who ranks below top management level.

Significance of Study

The study can make a substantial contribution to the existing body of knowledge in understanding the mediating role of employee engagement in organizational performance of pharmaceutical industry. There are some existing studies that has been performed on this topic, yet current research attempts to provide country specific information regarding the factors that are specific to the Malaysian context and enable future comparison between factors influencing employee engagement in pharmaceutical industry across countries. Moreover, the study attempts to understand the organizational performance of a pharmaceutical company that is battling to improve their performance at the current situation of COVID-19 pandemic. Studying employee engagement and organizational performance under this demanding environment will attempt to add more valuable insights on the existing researches.

In addition, employee engagement is considered as an asset to any organization and it is directly related to the performance and output of the business entity. Improvement in employee engagement is critical to pharmaceutical industry's success. The identification of factors that influence employee engagement will greatly contribute to development in management of employees and future programs for engagement. Further, this can provide benefits for pharmaceutical companies in term of performance and growth ensuring employees are committed to their work and contribute better towards their organization success and help to achieve company's goals. Besides, the information from this study can help the top management in understanding the employees better in improving their commitments. Hence, this study can add knowledge to the existing literature on the employee engagement and factors contributing to employee engagement and its impact on the organizational performance in the pharmaceutical industry in Malaysia.

Structure of Research

This paper is presented in a sequence in which it delivers the introduction to the study first. The section discusses the importance of employee engagement in pharmaceutical industry in Malaysia. The background statements, problem statements, questions and objectives of the study, significance and scope of the study are outlined on this chapter. Second section is the literature reviews of the background of employee engagement, and the factors, work environment, training and development and rewards and recognition. It also discusses on the relationships between employee engagement and the factors. Further, the underpinning theory and research framework also has been discussed in this section. Third section addresses the research methodology and further the study design, sample and data collection, study instrument, and method of data analysis are discussed in this section. Forth section examines the collected data with descriptive and multivariate data analysis. The research outcome, which includes reliability and validity and the hypotheses acceptance are reported in this section. Last section concludes the research and discusses the findings on the impact of employee engagement on organizational performance in pharmaceutical industry in Malaysia.

Literature Review

Organizational Performance

There are many definitions that has been pinned on the term performance due to its multi-dimensional and subjective nature. In previous researches, it has been stated that

organizational performance has to be conceptualised from different perspectives which includes creativeness, innovativeness, productivity, efficiency, effectiveness, competitiveness and profitability (Anthony et al., 2010). Further, Sink and Tuttle model, developed by Sink and Tuttle in 1989, claimed that performance and organizational system is a complicated interrelationship between few performance criteria such as effectiveness, efficiency, quality, productivity, innovation and profitability (Rolstadas, 1998). The author also opined that these measures are multidimensional and context dependent. This exhibit a challenge in finding a common objective measure for the dimensions. It was also stated that the performance measures for manufacturing companies has to be chosen appropriately as per the context. Thus, being a multifaceted concept, organizational performance can be indicated with effectiveness, efficiency, development, satisfaction, innovation and quality (Katou and Budhwar, 2007).

Moreover, organizational performance is also defined as a measure of the extend of governing organizations and the value it delivers to customer and other stakeholders. In one of the studies, organizational performance defined as overall the actual outcome or results of an organization as measured against its intended output (Richard et al., 2009). Agreeing with this, study by Tomal and Jones stated that organizational performance can be theorized as the organizational output measured against its anticipated outcomes, goals and meeting the expectations of different stakeholders (Tomal & Jones, 2015). The study also reinforces the idea of measuring the organizational performance along organizational and work unit levels requiring complementary dimensions and information of progress. It is explained that organizational performance is contributed by the way workplace is structured where trained and motivated employees are directly involved in determining work to be performed and the way it is being performed (Anthony & Bhattacharyya, 2010). As per Mankins and Steele (2005) organizational performance is evaluated by several elements such as operational efficiencies, levels of diversification, mergers and acquisitions, top management composition and organizational structures and social effects manipulation on market conformity (Mankins and Steele, 2005).

Organizational performance is also directly related to innovation that results from creativity. Factors that act as a barrier to employee creative thoughts and restrict them from sharing innovative ideas influences organizational performances (Saleem et al., 2021). In supporting this, there is another study that reported significant positive relationship between effect of innovation on organizations growth and performance (Al-Ansari, 2014). Creative performance is measured externally by products or accomplishments that can be assessed meanwhile innovation is seen in the implementation of new useful ideas by people in organization (Amabile et al., 1996). A study by Rolstadas (1998) also states that innovation is a crucial component in sustaining and improving organizational performance (Rolstadas, 1998).

In addition, comparison of performances across studies are hard to be made due to the absence of widely accepted measure. The same opinion has been discussed by Neely and Bourne stating that poor design and difficulty in implementation causes performance measure initiatives to be collapsed (Neely and Bourne, 2000). Another study also exhibits that for performance criteria, there is no a single factor which could suffice enough to be applicable to all organization (Rouse and Putterill, 2003). However, even if the measurement for organizational performance has remained controversial, a study by Brignall S and Modell S., endorses that a multidimensional organizational performance approach reflects a broad range of stakeholders' interests (Brignall & Modell, 2000). This also been stated by another

author that organizational performance is a intricate subject which has to be considered in the contextual setting of existing framework (Mafini, 2015).

The novel Coronavirus has spread uncontrollably causing serious health problems and disrupted global economic activities due to mobility restrictions, stay-at-home orders, social distance policies and community lock downs. Although some essential industries demand heightened during the pandemic, the impact on some industries were severe. The pandemic also had negative impact on organization performance when firm's investment sales and sales revenue went slower (Khatib & Nour, 2021). Another study reported that business areas such as process reengineering dimensions, readiness of organizational for change, capabilities in information technology and people management have substantial positive impact on organizational performance post pandemic (Hameed et al., 2021). Similarly, impact of COVID-19 can be seen in sustainability, employee retention and innovative performance among Malaysian industries (Shehroz et al., 2021). Pharmaceutical sector is one of the essentials that had contributed significantly in fighting against the pandemic. Despite the profitability of the pharmaceuticals be booming during the pandemic, it is important to study the organizational performance post pandemic with mediating role of employee engagement.

Employee Engagement and Organizational Performance

Employee engagement plays an important mediating role as predictor of organizational performance as organizations uses this as a mechanism to monitor the attainment of goals and objectives (Performance Improvement Council, 2018). As per few authors, there exists a bidirectional relationship between employee engagement and organizational performance (Bedarkar & Pandita, 2014; Lee et al., 2017). Another author found that there is a positive association between employee engagement and individual morale, task performance, extra-role performance, and organizational performance. Their investigation on relationship between employee engagement and organizational performance reveals that it occurs at both team and organizational level (Bailey et al., 2017). Other researchers also reported positive influence of employee engagement over organizational performance based on the overlap in definitions (Bowling et al., 2015). Employee engagement also support business outcomes of organizational performance (Al-Khouri, 2014; Bailey et al., 2017; Chowhan, 2016; Flink, 2015; Gupta & Sharma, 2016). Hence, the studies prove that there exists a positive significant relationship between employee engagement and organizational performance.

Moreover, the implications of low employee engagement such as high rates of turnover, absenteeism and poor supervisor-subordinate relationship has been discussed by numerous authors (Kaliannan & Adjovu, 2015; Risher, 2017). Also, it is reported that the organization performance can suffer when employees are not engaged (Alagaraja & Shuck, 2015; Cesário & Chambel, 2017; Nazir & Islam, 2017; Alfes et al., 2013) and that performance is important for an organization to sustain and grow. According to Gupta & Sharma (2016), when negative sentiment is experienced by employees, there will be an adverse impact on the organizational performance (Gupta & Sharma, 2016). Their findings also validated three facts related to employee engagement that it is measurable, can be correlated with business performance and it runs from highly engaged to disengaged employees. It also indicated that organizations need specificity in defining employee engagement constructs including methods to measure employee commitment, involvement, attachment, discretionary effort, energy, positive attitude, and psychological presence (Gupta & Sharma, 2016). Thus, negative implications caused by low employee engagement impacts organizational performances.

In addition, employee engagement is a critical component of organizational performance and it can be examined through factors such as employee, job, work and organization (Shuck et al., 2017). Aspects of employee engagement such working environment and employee's strong sense of belongingness to the workplace, and strong connection between leader behaviour and individual can increase organizational performance (Brown & Leigh, 1996; Gallup, 2017a; Leroy et al., 2015). Gupta and Sharma found that implementation of organizational policies in boosting employee potential and performance can be directly connected to organizational performance and success. They reported some of the organizational outcomes including higher customer satisfaction and loyalty, higher productivity, profitability, lower turnover/higher retention and psychological safety (Gupta & Sharma, 2016). This is in align with outcomes by other authors where they identified organizations can expect improvement in performance and service delivery which influence customer satisfaction with positive employee engagement (Bowling et al., 2015). Engaged employees will contribute positively throughout the organization. Therefore, employee engagement is an essential element for any organizational success and performance.

Hypothesis 1: There is significant mediating effect of employee engagement towards organizational performance.

Employee Engagement

Employee engagement is one of the critical factors for any industry as it is observed to provide positive outcome boosting the efficacy and efficiency of whole organization (Bhatle, 2011; Baumark, 2004; Richman, 2006; Wang, 2011). It can be deduced that organization performance and employee output and productivity is directly related to employee engagement. Studies has found that an engaged employee is valuable asset to an organization that cannot be imitated by the competitors (Bassi & McMurrer, 2010; Budhwar & Bhatnagar, 2007; Salanova, Agut, & Peiró, 2005; Yeh, 2013; Baumruk, 2004). It has been agreed that business entities with higher levels of engaged employees are more profitable and productive, while disengagement causes decrease in motivation and commitment of employees to their organization (Harter et al., 2002; Ortiz et al., 2013). Furthermore, employee engagement can be viewed as a workplace approach in ensuring highly motivated and devoted employees in contributing to the organizational success and growth (Agrawal, 2015; Vorina et al., 2017).

Different researchers has defined employee engagement differently, where the earliest conceptualization of employee engagement was done by Kahn as "harnessing of organization member's selves to their work roles: in engagement, people employ and express themselves physically, cognitively, emotionally and mentally during role performance" (Kahn, 1990,p.694). Followed by, this concept was extended in relation to organizational effectiveness (Katz and Kahn, 1996). In addition, Kahn further added requirements that are essential for an employee to be rightly engaged including meaningful work elements, social elements safety such as management style, process, and organizational norms and individual distractions. Reinforcing the idea by Kahn (1990), studies by other researchers show that employee engagement can be regarded as positive and satisfying work attitude or behavioural investment of personal energy that motivates employees to express themselves emotionally, physically and cognitively (Schaufeli and Bakker, 2010; Schaufeli & Bakker, 2004; Catlette and Hadden, 2001; Dernovsek, 2008). On top, Buckingham and Coffman has mentioned that employee engagement is attained when "the right people in the right roles with the right managers drive employee engagement" (Buckingham and Coffman, 1999).

In another context, Schaufeli & Bakker (2004) has explained three dimensions of employee engagement which are vigor, absorption, and dedication that can influence work related attitude (Schaufeli & Bakker, 2004). Meanwhile, enhancing the established cognitive and emotional aspects of employee engagement, adding the spiritual element to it, Fleming and Asplund (2007, p.2) has presented the idea of employee engagement as “the ability to capture the heads, hearts, and souls of your employees to instill an intrinsic desire and passion for excellence” (Fleming and Asplund, 2007). Moreover, Saks (2006) has referred employee engagement as “the extent to which an individual is attentive and absorbed in the performance of his/her roles”. Hence, it can be said that employee engagement is a wide concept that comprises of multiple-related aspects including psychological engagement, enthusiasm and initiatives, behaviours of organizational commitment, citizenship and involvement in decision making and positive representation of organization to outsiders (Organ et al., 2005; West & Dawson, 2012).

Besides, employee engagement acts a measurement tool for the employee’s actions, passions, energy and their obligation in harnessing success to their institutions and organizations (Hewitt, 2012; Looi, et al., 2004). Some researchers found that employee engagement is the drive of emotional relation of employees to make huge efforts in achieving organizational goals (Permana et al., 2015). Indeed, Abraham (2012) has also supported this notion by defining employee engagement as the extend job satisfaction and an emotional connection of workers to the business success and improved productivity (Abraham, 2012). Therefore, employee engagement can be an employee’s cognitive, emotional and performance level that channelled towards coveted organizational outcomes (Khan, 2013; Shuck & Wollard, 2010).

Reviewing employee engagement in Malaysia, it has been reported to be in the standing of 54%, just ahead from global average in employee engagement scale for the year 2020. Some of the key drivers of employee engagement that measured in the study are opportunities for growth and development, manager effectiveness and support and resources. The study implies that there is still some space for improvement for employee engagement among Malaysian industry. Moreover, there are still lacking in finding for definitive employee engagement drivers as it differs as per context of industry. O’Carrolln (2015) has stated that due to variation between organization, industry type and culture, there is no absolute list of engagement drivers, yet there are similarities among few engagement models (O’Carrolln, 2015). Indeed, another concluded that different biographical and personality characteristics can lead to varying employee engagement levels (Smith and Markwick, 2009). Meanwhile, in another study by Wellins, Bernthal and Phelps (2005), employee engagement drivers have been described as placing the right talent at the appropriate jobs, leadership and at correct organizational systems and strategies (Wellins et al., 2005).

Employee engagement in pharmaceutical industry is an important mediating variable of interest given that the industry is under demand at the current COVID-19 pandemic situation. It is evident from other literature that employee engagement is not being studied widely and comparatively little is known about its antecedents and effects in management (AbuKhalifeh & Som, 2013; Kular et al., 2008). In one of study conducted on validation of employee engagement framework in Saudi Arabian Public Healthcare, factors such as training and development, workplace spirituality, digital capability, and reward and recognition contribute to employee engagement (Almotawa et al., 2020).

Similarly, studies that has been conducted in different industry such as higher education, banking, travel agency, airline industry shows commonalities in employee engagement factors including training and development, work environment, rewards and recognition, pay and promotion, and career management (Lee et al., 2018; Selvarasu et al., 2014; Osborne et al., 2017; Hanaysha; 2016; Chaudhry et al., 2017; Alola & Alafeshat, 2019; Soliman and Wahba, 2019; Tepayakul and Rinthaisong, 2018). Hence, studying employee engagement in pharmaceutical industry is important given that the industry is currently under the demand facing COVID-19 pandemic situation.

Impact of Employee Engagement in Organizations

Globally, employee engagement was at 66% in the year of 2019, and it increase by 2% moving towards 2020 (Statista, 2022). The increase in employee engagement in the midst of global crisis can be understood as despite the volatility of labor market, employees started to feel connected to their co-workers and organizations as they come together to support each other in overcoming business challenges. Leadership communication and feeling valued by organization seen to improve the employee engagement (PeopleElement, 2021). In Malaysia, the employee engagement index was at 54% in the 2019, with a drop of about 9% from the year 2018 and it increased to 66% in 2020. COVID-19 crisis definitely acted as main factor for the drop observed in the employee engagement from the year 2018 to 2019.

The pandemic has taken toll on every organization's performances and productivity and as a result, the employee's engagement and well-being has been jeopardized by the situation. In most of the studies, employees work-life balance has been reported to decline in fast pace in 2021 with lacking flexibility, manageable workloads, clear expectations in chaotic and stressful business climate. In a report by Willis Towers Watson on 2021 Employee Experience Survey, about 35% experienced a decline in employment productivity and about 40% negative impact on employee engagement as an impact of the pandemic. Employee wellbeing has also regressed from 85% in the first half of 2020 to 74% in Q2 of 2021 (Kincentric, 2021). This reflects shifting expectations on employee well-being and care suggesting uncertainty on future plans of return-to-office norms. On the other hand, the increasing attrition rate and eroding talent retention has led to burnout for those who stayed causing imbalance in work distribution and impacting the health of employees. Hence, the organizations might have to resolve the issue by understanding the gaps between employees, leaders, and the organizational infrastructure in getting back on track.

In addition, the 'great resignation' has hit the labor market with increasing rate of resignations and it is predicted to continue throughout 2022 (Kincentric, 2021). This wave of resignations said to be a "catch-up" from the lack of resignations in 2020 due to the tougher labor market. Some other factors that can contribute to this are increased talent mobility, difficulty attracting and retaining talent, challenges with work-life balance, regression on wellbeing focus, decreased clarity for future and lack of career growth. The percentage of employees who envisioned professional growth and career development in their organization has reduced to 72% in May 2021 from 78% observed in the beginning of the year (Quantumworkplace, 2021). This shows that stagnant workplace without opportunity for growth drives the employees to leave the organization eventually.

Throughout 2021, the number of employees who intent to stay in their current organizations has declined by 7%. The declined unemployment rate and increased job market confidence post-pandemic has made the employees to rethink of their current jobs. In retaining the employees, refocusing in learning and development is observed key parameter as about 60% of employees stated that opportunities for learning and development and manager's help in resolving work-related issue boosts the intent to stay in the company. Employees also reported to feel that leaders create less excitement for future and less confident in their career opportunities as they receive fewer future directions from them. Around 57% of the employees agreed that presenting a clear link between work and companies' strategic objectives will help them to understand their roles in better way and will have improve their retention rate (Qualtrics, 2020).

Several industrial reports and academic findings published on employee engagement factors over the years. Some of the widely studied factors are leadership, learning and development, rewards and recognition, work environment, team and coworker, organizational policies and communication. In 1990, Kahn introduced three psychological engagement conditions, which are meaningfulness, safety and availability (Kahn, 1990) which discussed on the factors for employees to be rightly engaged. As an extension to the study by Kahn in 1990, Saks in 2006 included job and organization engagement in the construct of employee engagement (Kahn, 1990; Saks, 2006). He opined that job characteristics, organizational support, supervisor support, rewards and recognition, procedural justice and distributive justice are antecedents of employee engagement. Further, Jagannathan A. in 2014, consolidated the literature and relevant items to develop a model for employee engagement factors that consist of work environment, leadership, team and co-workers, training and development, compensation, organizational policies and well-being at workplace (Jagannathan, 2014). However, the factors contributing towards employee engagement changes according to the environment and context and has to be constantly studied and monitored.

Leadership is a main factor for employee engagement as the engagements occurs naturally when the leaders are inspiring. Further, the sense of involvement, satisfaction and motivation for work increases among the employees with leaders who can guide them navigating through challenging work situations such as the global pandemic. Strong leadership is very important during the times of uncertainty as leaders are responsible keeping teams inspired, informed and motivated working towards collective business goals. A study by Xu and Thomas found a positive relationship between leadership and engagement (Xu and Thomas, 2011). Followed by, another study reported transformational leadership is a significant predictor to explain organizational knowledge creation with engagement as a partial mediator (Song et al., 2012). Thus, leadership is an vital element contributing to employee engagement.

Followed by, interaction between team and co-worker are another factor contributing to employee engagement as it emphasizes on the interpersonal harmony aspect and creates a safe and supportive workplace environment. As the employees collaborate in team-work and help each other by sharing ideas, they are more dedicated and happier at workplace. A study found a supportive and trusting relationships among employees is found to promote level of employee engagement (Kahn, 1990). It will help members of organization to help to explore new things in difficult situations. Another study has reported that employees will experience abundant level of significance towards their work and become an engaged work member with positive interpersonal interaction within the team (Locke and Taylor, 1990). Supporting this,

Anitha (2013) opined that work engagement is considered to be at great level when employees have a good relationship with members within an organization (Anitha, 2013).

Besides, knowledge management is considered as an essential factor in employee engagement process as it boosts confidence, motivates employees to perform their job well in the digitalization era. Employees play an important role in knowledge management and they are the most valuable assets within the organization. They influence the way information and knowledge is shared throughout the organization. Knowledge management causes employees to be more flexible and it improves their job satisfaction (Becerra-Fernandez et al., 2004). In a recent study by Muralidharan (2006), it is reported that in organization having more employee's knowledge sharing records high job satisfaction. It is acknowledged that job satisfaction increases the employee engagement, lowers absenteeism, improves job performance and productivity level (Deci and Ryan, 1987). It is also an important factor as it offers opportunities for the employees to climb through the career ladder. This factor is rated as one of the highly important during pandemic as a lot of organizations adopt to the new business environment with up-skilling their employees especially in equipping them with knowledge of new technology. Knowledge management provide employees with solutions to the problems they face and supportive environment within the organization to address the problem (Muralidharan, 2006). A supportive working environment is considered as a key determinant of employee engagement (Deci and Ryan, 1987).

A recent study by Society for Human Resource Management (SHRM) shows that the pick-up in economic growth over past years has raised employees' expectations of higher pay and richer benefits. Compensation is considered as a significant classic factor of employee engagement as it motivates employees to achieve more and to feel appreciative to respond to the organization with higher level of engagement. There are monetary and non-monetary compensations being offered by organizations and both are seemed to be equally important. Increasing monetary rewards will help to retain employees who are experienced and non-monetary rewards are favored by fresh talents. Studies also have pointed out that higher pay have tight connection between employer recognition and employee job satisfaction. Egalitarian pay structures and quality of leadership have stronger relationship with the organization's ability to produce highly engaged employees (Chandani et al., 2016). Thus, pay and compensation is an important aspect of employee engagement.

In addition, work-life balance is defined as the steadiness between work life and life outside the work and it has a role in increasing the employee engagement (Benito-Osario et al., 2015). According to Downe & Koekemoer (2011), employees who have more flexible working hours are able to take responsibility in their lives, provide psychological benefits and to deliver benefits to companies such as improving performance, loyalty, motivation and commitment. The entry of millennial generation in companies has their own demands that can affect productivity, motivation, and raise retention problems and turnover. The millennials have demands to have more flexible working hours as a source of their welfare (Kulthalahti & Viitala, 2014). Work-life balance benefits the employees and organization collectively and it helps employees to maintain a healthy and beneficial lifestyle that affects their performance improvement (Grimm, 2017). Hence, work-life balance is a vital factor in improving the employee engagement.

Evolution of Employee Engagement Pre and Post Pandemic

In 2018's, the key drivers for employee engagement globally was observed to be more focused in the areas such as the company's senior leadership plan, job flexibility in trying out new things, opportunity for training in improving the skills required for the job, fair amount of pay, and career progression (Qualtrics, 2018). The employee engagement in Malaysia pre-pandemic was reported to be higher than key Asia Pacific economies with an overall engagement score 63% (Aon, 2018). Before COVID-19, the employees in Malaysia were more favorable of organizations that offered work-life balance and career development. The technological advances and digitalization at the time required a job environment with valuable guidance and counselling, especially for the millennials.

As the world was engulfed by pandemic in 2019, slowly it has geared a shift in focus for employee engagement. The organizations around the globe are constantly trying to adopt to the new changes. Factors such as communication and leadership, compensation, benefits and health, well-being and balance are given more importance than the others. In the midst of pandemic, opportunities for learning and development scored about 60% of importance followed link between work and company objectives and recognition for good works (Qualtrics, 2020). Followed by, employee well-being has become a focus to avoid burnout as the uncertainty continues.

Moving towards 2021, in adapting to the new reality, the employers had more emphasis on compensation, employee well-being, leadership and communication. As per People element, about 41% of the employees are dissatisfied by compensation and about 36% were least favorable around leadership listening and caring about their concerns (PeopleElement, 2021). Also, a study by María-Carmen De-la-Calle-Durán and José-Luis Rodríguez-Sánchez (2021) proposed 5C model for boosting employee engagement post-pandemic with focusing in well-being and health of workers. The model's main factors are conciliation, cultivation, confidence, compensation and communication. The study's findings further validated the shift in employee engagement caused by the pandemic.

The world of work is facing many confronts in managing employee engagement with safety measures, lockdown and social distancing. In reinforcing the employee engagement, reconciliation of work and home-life balance and flexibility acquire considerable importance. Organizations also have to give emphasis on proposing new development schemes for employees and boost the confidence among employees through hands-on leaderships. With COVID-19 still raging, compensation plays a vital role in covering the additional cost that incurred at these difficult times. Also, in adapting to the new remote working practices, communication among co-workers and leaders are limited. Thus, the management has to ensure certain level of communication practices as it promotes employee engagement and participations. With the factors discussed above, the table below highlights the shift in factors for employee engagement across the years paving through pandemic.

Table 1

Evolution of Employee Experience and Engagement in Organizations over the years

Key Drivers in 2018	Key Drivers in 2020	Key Drivers in 2021
Leadership and communication	Learning and development	Compensation
Work-life balance	Work and company strategic objectives linkage	Development schemes for employee
Training and development	Recognition for good work	Employee well-being
Rewards and recognition	Employee well-being	Leadership
Employee value proposition	Career development	Communication

Work Environment

Work environment is considered as highly influencing factor in supporting employees to perform their work more effectively and enhance employee's competencies in any industry. Work environment is referred as a individual organization's climate where its employees perform their duties and it is confirmed that it is important in influencing organizational commitments (Danish et al., 2013; Haggins, 2011). Further, positive effect has been reported on job satisfaction and organization commitment with conducive work environment (Pitaloka and Paramita, 2014; Rani and Devi 2016). In addition, study by Khuong and Le Vu (2014) also revealed that employees with comfortable working environment work more effectively and have good experience over the working process as compared to those who feel uncomfortable (Khuong and Le Vu, 2014). Indeed, another study by Salunke (2015) discussed that a constructive work environment encourages employees to do their job duties efficiently with proper utilization of the resources in providing high- quality services to the customers (Salunke, 2015). It can be concluded that a well-designed, comfortable, flexible and aesthetic work environment will nurture positive effects in an organization (Gladys et al., 2017).

In addition, good working environment has been referred to as to a place where the employees can perform their job without pressure or stress. This has been proved in a study by McCoy & Evans (2005) where they referred working environment as a amiable work area that is stress free for employees in completing their duties. Moreover, another study has established that employees are fully satisfied and encouraged, feel happy, relaxed and safe with the good working condition and environment (Sageer et al., 2012). It was also found that absence of working conditions that has physical comfort and convenience can have impact on worker's mental and well-being (Baron and Greenberg, 2003). Hence, it can be established that good working environment is essential for the employee's well-being and mental health on top of boosting their job performance.

Besides, work environment can be influenced by many factors and some of the factors commonly studied are relationships within the workplace, interpersonal relationships that promote psychological safety, trust, openness, flexibility and lack of threat (Attridge, 2009; Saks, 2006; Kahn, 1990). Meanwhile, Moss (1994) has mentioned that factors such as involvement; team cohesion, support from supervisor, task orientation, work pressure,

autonomy, clarity, innovation, physical comfort, and managerial control are comprised of work environment. However, Frame (2004) has defined work conditions as employee's work place, work instruments, the job itself, organization policy and organizational rules (Frame, 2004). This idea of work environment is similar to the definition discussed by Chan & Huak (2004), where they suggested work environment as social, ecological, physical, environmental, mental and emotional appearances of employees in their business entity (Chan & Huak, 2004).

Generally, the working environment in pharmaceutical industry is observed to be highly regulated and heavily action-oriented. Pharmaceutical research and development are reported to be fast-paced, uncertain with challenges, changing priorities and the health and safety of individuals and co-workers are important, as well as the environment in developing and manufacturing safe medicines (Andrew, 2016). Sustaining livelihood with COVID-19 pandemic, the concept of working environment requires further clarification with most of the employees are continuing to perform their job based on work from home concept. The working environment in pharmaceutical industry is found to be fast-paced and uncertain with challenges (Andrew, 2016). Thus, it is important to study the working environment of the industry in understanding performance along the rising disease burden.

Work Environment and Employee Engagement

Researchers has claimed that employee engagement is the result of various aspects of the workplace (Miles, 2001; Harter et al., 2002; Holbeche and Springett, 2003; May et al., 2004; Rich et al., 2010). Work environment is considered as one of the important factors for job engagement. Administration that nurtures a supportive working environment typically displays concern for employees' needs and feelings, provide positive feedback, encourages them to voice their concerns and help them to develop new skills (Deci and Ryan, 1987). Working environment is also explained as being a good predictor of employee engagement and it is considered as an vital factor that have strong effect on employee engagement (Saks, 2006).

In reinforcing this, Rich et al (2010) stated that there is a strong link between working environment and employee engagement. In addition, it was opined that enabling and supportive working environment are engaged and motivated beyond the call of duty (Maslach et al., 2001; Simon, 2011). Supporting this, Kashive and Khanna (2017) has concluded that unfavorable work environment is negatively associated with employee engagement and job satisfaction (Kashive and Khanna, 2017). Further, A study conducted by Soliman and Wahba (2019) on travel agency sector in Egypt shows crucial positive relationship with employee engagement. However, another finding conducted on university setting shows there is only a moderate level of employee engagement (Nasidi, 2019).

Moreover, Dollard & Bakker (2010) has claimed that culture of psychological ownership and engagement begins when leaders create a psychologically safe workplace (Dollard & Bakker, 2010). This is further supported by Kahn (1990) where he stated that personal relationship increases psychological safety as they provide support, trust, openness, flexibility and lack of threat (Kahn, 1990). Besides, findings observed that one of the main drivers for employee engagement is working in a safe environment with supportive relationship (Soliman and Wahba, 2018). Accrediting this, Saks (2006) agreed that encouragement from colleagues improves engagement within the organization (Saks, 2006). Meanwhile, Attridge (2009)

confirmed that relationship between both colleagues as well as management affect the working environment. In addition, an engaged employee is well-motivated towards services, have improved service levels, and will provide a high energy working environment (Sadiqe, 2014). Hence, it is important to evaluate the relationship between working environment and employee engagement in the increasingly challenging working environment of pharmaceutical industry. Even there are extensive studies has been done in exploring the relationship between working environment and employee engagement in various settings, there is very limited known on this topic in context of healthcare sector. Given the fast-paced and highly regulated working environment of pharmaceuticals, current study attempts to explore the relationship between working environment and employee engagement in pharmaceutical companies in Malaysia. Therefore, from the above discussion the following testable hypothesis is developed:

Hypothesis 2: There is significant relationship between work environment and employee engagement.

Training and Development

Training and development are one of the critical areas that is being emphasized in many organizations as part of human resource development as part of growth of knowledge, attitude and skills (Lard et al., 2003). Gilley (2002) has referred development of career as a process of both the individuals and organizations partnership in improving employees' knowledge, skills, competencies, and attitudes for their current and future job assignments (Gilley, 2002). In similar way, Patrick (2000) has defined training as growth of knowledge, employee's attitudes and skills to perform given task effectively and efficiently. This idea has been supported by Aswathappa (2005); Armstrong and Taylor (2014) by referring training and development as the process and method in cultivating the aptitude, skills, knowledge, ability, attitude of employees in performing their related duties in the organization (Aswathappa, 2005; Armstrong and Taylor, 2014).

Further, training and development is also has been discussed to sharpen the thinking ability and creativity of employees, to become more productive and to prepare them in performing their jobs as desired (Elnaga & Imran, 2013). This has been supported by Tahir et al (2014), where in their studies training is presented as an aspect of building capacity in any organization to improve staff performance (Tahir et al., 2014). Meanwhile, Elnaga & Imran (2013) has stated that training sharpens the employees thinking ability and creativity in order to take better decision in time and to be more productive (Elnaga & Imran, 2013). Other researchers also have discussed that training is a systematic activity that enhances the level of skills and knowledge that is essential to accomplish work effectively (Azeem et al., 2013; Sultana et al., 2012). It has been also suggested that job training help employees to be better performers and to be highly motivated (Sultan et al., 2012; Hameed and Waheed, 2011). Moreover, training and development is also required for reasons such as advancement in technology, accuracy of result, better supervision, intense competition, and customer demands (Chan & Kuok, 2011).

In another study, researcher has suggested that it is equivalent to rewarding people when an organization offers employees an opportunity to grow and the satisfaction on a person is when they explore their capability (Alderfer, 1972). Therefore, in preparing and optimizing

employees in doing their jobs as desired, the organizations should provide appropriate trainings (Kiweewa & Asiimwe, 2014). Training and development in pharmaceutical industry is an important aspect as the industry comes with guidelines that laid by regulatory bodies. In surviving the highly competitive scenario of the industry, effective training programs are vital (Pai et al., 2016). Thus, the importance of training and development in pharmaceutical industry has been studied as one of the factors contributing to the growth of the industry.

Training and Development and Employee Engagement

Training and development is an important factor in improving employee skills, knowledge and to provide the opportunity for growth. Learning, training and development are found to be significant antecedents of employee engagement (Soliman and Wahba, 2018; Azeem & Paracha, 2013). Also, it was found that managers have to explore employees' strengths and areas for development and help them to enhance their skills and abilities. This provides a sense of fulfilment among employees and eventually increases engagement (Ahmadi et al., 2012; O'Carrolln, 2015). Besides, Paradise (2008) agreed that training improves service accuracy and therefore it impacts performance and employee engagement (Paradise, 2008). This notion has been supported in few studies where it has been deduced that training and development has magnitude to increase employee engagement and subsequently organizational performance (Sendawula et al., 2018). Further, in a study carried out in Poiana Brasov in Romania by Karatepe (2013), it was stated that training and empowerment enhances employees' work engagement (Poiana Brasov, 2013). Training and development is also found to have influence on organization's financial returns and profits as result of employee engagement (Xanthopoulou et al., 2009; Granatino et al., 2013).

In addition, training and development is argued to have favourable impact of employee engagement and lead employees to have more positive emotions about their organization (Hazelton, 2014; Poon, 2013). This is endorsed by another study stating that training and development reveals positive effect on employee engagement (Presbitero, 2017; Davies et al., 2001). Moreover, Suan and Nasurdin (2014) has opined in their study on upscale hotels in Malaysia that there is a positive significant influence between training and performance and work engagement (Ling Suan, Mohd Nasurdin, 2014). Career development opportunities have an effect on engagement as employee engagement will be to the extent their needs being met by employees (Woodruffe, 1999; Simon, 2012).

Studies also have found that employee engagement is low when there is no training and development (Robertson-Smith and Markwick, 2009; Nawaz et al., 2014). Further, Gruman and Saks (2011) suggested that organizations need to allow employees to continue develop and grow throughout their careers in order to keep them engaged and that training is an appropriate method of providing employees with resources that allow to fully engage (Gruman and Saks, 2011). Also, Shuck & Herd (2012) asserted that training and development has a relationship with employee engagement and has an important role in the organization development (Shuck & Herd, 2012). In contrast, Babakus et al (2017) found out that training was negatively linked with employee engagement in a study carried out using employees in hotel industry in North Cyprus (Babakus et al., 2017). Hence, since there is inconsistencies found in relationship between employee engagement and training and development been reported in the past studies, it is important to study the impact of this factor in employee engagement on pharmaceutical industry in Malaysia. Therefore, the following hypothesis is formulated:

Hypothesis 3: There is significant relationship between training and development and employee engagement

Rewards and Recognition

Rewards and recognition are seen as one of the important programs nowadays in any organizations in retaining well eligible employees and engaging them in customer satisfaction, management of scarce resources and to improvement of performances (Freed, 1999). In a study by Spitzer (1996), it has been advised to explore a cost-effective reward system. However, Darling et al., (1997) has opined that it is challenging to develop and implement meaningful and cost-effective reward system. Besides, rewards and recognition have been defined in various ways over the years of studies. In one of the researches, it has been referred as an outcomes of employment relationship which is valuable to the employee (Chen and Hsieh, 2006) and the absence of such system will increase turnover (Urlichuk, 1999). Meanwhile, recognition is considered as an act of letting employee know that the company sincerely appreciates their performance and contributions (Sartain, 2003). In supporting this idea, Evans and Lindsay (2003); De Lacy (2009) has claimed that reward and recognition helps organizations to provide a visible means of promoting quality efforts and conveying employees in valuing their efforts (Evans and Lindsay, 2003; De Lacy, 2009).

Further, several other researchers have discussed reward as composite amount of monetary and non-monetary benefits provided by the employer in return of required work performed by employee as part of employment relationship (Armstrong and Murlis, 2007). This idea has been also supported by Chadwick (2008) where he emphasized that rewards and recognition can be correlated to formal organizational programmes or delivered informally by a manager to the employees (Chadwick, 2008). For instance, in a study done in midst of COVID-19 pandemic, rewards such as monetary reward help employees to keep up with their current difficulties and to stay prepared for the long-drawn recovery from current economic state and employment crisis. It can be deduced that an effective reward and recognition strategy which act as a staff motivator should account for personal characteristics, job roles and experience (Younies & Al-Tawil, 2020). The study also recommended that human resource managers can utilize reward and recognition as a tool to encourage employees by recognizing highly commendable employees. Indeed, this findings are in agreement with study done by Aguinis et al (2013) articulating monetary rewards are one of the powerful factors affecting employee motivation and performance (Aguinis et al., 2013). Meanwhile, Zani et al (2011) revealed that non-financial incentive is best way to motivate employees. This is endorsed by research conducted by Nandanwar et al (2010), where it discusses non-monetary rewards positively associates with employees motivation.

Rewards and recognition are also seen as a motivator that every organization should devise it as per employee to keep their performance at higher level and help in shaping certain behaviours. Researcher has opined that an employee who is rewarded considers their work to be of worth developing a sense of recognition that drives them to perform well (Bamel et al., 2013; Lawler, 2003). Reward and recognition are considered as an important factor to boost morale and to create goodwill between employees and managers (Bowen, 2000). Asserting this, Jackson et al (2012) stated that rewarding high performing employees by leaders encourages them to uphold their performance levels and work hard channelizing more efforts to attain goals as per path goal theory (Jackson et al., 2012).

In addition, Shanks (2007); Rana (2015) has explained that rewards can be classified as extrinsic or intrinsic covering aspects such as team incentives, profit sharing, pay and

promotion, and praise and recognition (Shanks, 2007; Rana, 2015). Intrinsic rewards is considered as part of work and it does not have any physical presence. Some intrinsic rewards include professional growth and achievement, employee recognition, immediate tasks authorization, commendation from managers and co-workers, personal satisfaction, self-esteem, respect and appreciation (Ajmal et al., 2015; Kilimo et al., 2016). On the other hand, extrinsic rewards are considered as physical existence and cash-based rewards such as pay raises, bonuses, fringe benefits, job security, promotions, private office space, the enterprise social climate and overtime payment (Ajmal et al., 2015; Kilimo et al., 2016).

Furthermore, Hansen et al (2002) has claimed that reward strategies focuses on extrinsic behaviours while recognition concentrate on intrinsic motivation behaviours (Hansen et al., 2002). Moreover, study by McAdams (2000) suggests that it is important to align rewards such as profit, revenue growth, cycle time, financial return to the business objectives (McAdams, 2000). While, Danish and Usman (2010) stated that rewards and recognition should be presented for valuable performance that reach organizational goals (Danish and Usman, 2010). Further, study by Hafiza et al (2011) has reported a positive relationship between extrinsic rewards and employee motivation (Hafiza et al., 2011). In contrast, Tippet & Kluvers (2009) has found that the relationship between extrinsic rewards and employee motivation is insignificant (Tippet & Kluvers, 2009). This is supported by Deci et al (1999) claiming extrinsic rewards had a significant negative effect on intrinsic motivation (Deci, Koestner and Ryan, 1999). This inconsistencies in research conclusions shows that further studies need to be conducted in rewards and recognition as per interested context. Along the employee motivation, rewards are reported to control behaviours externally as it increases the possibilities of an action to be repeated over time (Bandura, 1977; Luthans, 2002; Stajkovic and Luthans, 2003; Mark, 2006).

Also, there are studies that concluded that recognition is important behavioural motivator beyond any reward being associated with it (Wilches-Alzate, 2009). Additionally, Andrew and Sofian (2011) opined outstanding performances by employees preferred to be distinctively rewarded and recognized (Andrew and Sofian, 2011). Adding to it, Cook and Dixon (2005) have revealed that performance in service sector can be improved with verbal feedback and financial incentives (Cook and Dixon, 2005). Thus, it can be stated that rewards and recognition complement each other and is important tool for any organization. Thus, the rewards and recognition are considered as one of the important factors in performance of employee and it is further studied in the context of pharmaceutical industry in this paper.

Rewards and Recognition and Employee Engagement

In many past researches, rewards and recognition has been established as an antecedent of engagement (Saks, 2006; Mohapatra and Sharma, 2010; Fairlie, 2011; Inoue *et al.*, 2010). Kahn (1990) has stated that having necessary tools at work makes employees to be more engaged (Kahn, 1990). Several studies have shown that, in various organizational settings, reward and recognition are related to employee engagement (Presbitero, 2017; Soliman and Wahba, 2018; Taneja et al., 2015; Cooper-Thomas et al., 2018). Appropriate rewards and recognition are considered important for engagement while recognition is reflection of an employee's work performances as well as their engagement (Maslach et al., 2001; Brun and Dugas, 2008). Indeed, there are studies indicating rewards are positively related to engagement (Hulkko-Nyman et al., 2012). Besides, recognition is also claimed to be critical to the culture and operation within the workplace (Brick, 2012). According to few other studies,

employees feel obliged to respond with higher level of engagement and converge to create a sense of ownership of outcomes upon recognition and rewards (Avey et al., 2012; Dajani, 2015; Suff & Reilly, 2008).

It is also observed that opportunities for employees to develop their jobs and the need for autonomy, intrinsic rewards are required for employee engagement (Bolman & Deal, 2014; Robinson et al., 2004; Hazelton, 2014). This finding is in line with studies done by Anitha (2014); Danish and Usman (2010); Freed (1999) stating that reward and recognition should be part of human resource strategy and that employee engagement is based upon employee's attractiveness to the benefits (Anitha, 2014; Danish and Usman, 2010; Freed, 1999). Saks (2006) also opined that as per social exchange theory, employees are highly engaged at work to the extent that they perceive a greater amount of rewards and recognition from their role performance (Saks, 2006). Meanwhile, insufficient rewards would increase people's vulnerability to burnout (Maslach and Leiter, 2008). However, in a study conducted by Almotawa & Shaari (2020), in Saudi Arabian Public Healthcare, it was reported that reward and recognition is negatively and insignificantly related to employee engagement.

In addition, rewards and recognition also act as predictor of engagement (Crawford et al., 2010; Mohapatra and Sharma, 2010; Ram and Prabhakar, 2011). Further, Fairlie (2011) stated that intrinsic rewards are to predict work engagement while another study proposed that extrinsic rewards can predict employee engagement (Fairlie, 2011; Inoue et al., 2013). There are studies showing that rewards and recognition predicts employee engagement by measures developed and it is an important part of work experience (Schaufeli et al., 2002). Besides, Danish & Usman (2010); Hewitt (2015); Scott & McMullen (2010) has mentioned that reward and recognition is one of the important motivations to improve employee engagement levels (Danish & Usman, 2010; Hewitt, 2015; Scott & McMullen, 2010). Supporting this, Pavlinac (2009) stated that high-performing employees need to feel valued and involved at work, followed by, Andrew & Sofian (2011) stated that they choose to be distinctively rewarded and recognised when their pay is related to performance (Pavlinac, 2009; Andrew & Sofian, 2011). Hence, it is important to study the relationship between reward and recognition and employee engagement in pharmaceutical industry in Malaysia given that there is a gap from studies showing inconsistencies in findings. Thus, the following hypothesis is deduced:

Hypothesis 4: There is significant relationship between rewards and recognition and employee engagement.

Underpinning Theory

Theory is a testable official explanation of events which includes the predictions on relationship between one to another and it comprises of a rational set of broad propositions that offer a coherent clarification of some phenomenon (Zikmund et al., 2013). Further, theory is also used to support and underpin the research objectives and research framework through acceptance or rejection of hypotheses. This study has been built based on Social Exchange Theory (SET).

Social Exchange Theory

Employee engagement has been studied over different theories and the SET model proposed by Homans (1958) has a stronger theoretical rationale in understanding the underlying

psychological mechanism involved in employee engagement (Homans, 1958). Social exchange theory was developed by a sociologist, George Homans (1958) focusing on people and behavior and it first appeared in "Social Behavior as Exchange" (George Homans, 1958). The discourse on social exchange theory dates as far as Aristotle's *Nicomachean Ethics* and consist of distinctions between social and economic exchanges (Blau, 1968). The main idea of the theory is that parties enter and sustain social exchange relationships with others in anticipation that doing so will be rewarding (Blau, 1968; Gouldner, 1960; Homans, 1958). As per the theory, each party owns something of value that the other wants and the parties decide what to exchange and the quantity.

In addition, Homans (1961) also opined that the underlying basis for human behavior is the exchange of benefits or giving something that is more valuable to a receiver than it is to the giver. The theory is limited to observing activities that are contingent on rewarding reactions from others (Blau, 1964) and it assesses two-sided, mutually contingent, and mutually rewarding processes called "transactions" and relationships called "exchanges" (Emerson, 1976). This further been discussed by Lawler & Thye (1999) stating that in achieving outcomes that neither could accomplish, self-interested parties transact or exchange with self-interested others (Lawler & Thye, 1999). Also, Blau (1994) added that the exchanges would end as soon as the it is perceived to be not mutually rewarding by both parties (Blau,1994).

There are many previous studies that have used this theory in their research and many scholars analysed the relationship between organization and members based on social exchange theory. According to Homans (1961), people create stable interaction as social relations where each party receive profits and once the initial relation has been made, the received rewards maintains and improves this interaction (Homans, 1961). Researchers have gone through the earlier works on this theory and rekindled their interest in understanding and enhancing quality of relationship between employee and employers (Moorman, 1991; Settoon et al., 1996). These findings support that the application of social exchange theory in an organization results in positive actions towards employees and it plays an important role in the creation of interrelationship and subsequent obligations among workers to reciprocate in positive ways (Settoon et al., 1996). Hence, the mediating effect of employee engagement is built on SET where an organization's act towards employee in a beneficial or positive way generates reciprocity such that employees responds in a beneficial manner that favors the organization (Blau, 1964).

Further, Levinson (1965) stated that labor, loyalty and true interest, and social rewards are transaction between employment and relationship between employee and employer is appropriate for reciprocity, where beneficial outcome can be expected for both parties to a certain extent with initial request for return (Sun, 2019). Reinforcing this, Masterson et al. (2000) opined that after contributing or providing services to the other party, return is expected in the future and the sense of responsibility to return the other party is developed among those who received something of value (Masterson et al., 2000). It has also been stated that high levels of perceived organizational support create obligations within individuals to repay the organization, thereby demonstrating an attitude and behaviour favourable to the organization (Eisenberger et al. ,1986). In another study by Hossen et al (2020), it has been found that from the perspective of SET that exchange or reciprocal relationship will create an eagerness among employees to ensure their benefits and induce them to be loyal to the organization and boost the organizational performance (Hossen et al., 2020). The SET theory suggests that employees will continuously show engagement as an

outcome of reciprocal exchange and as a result it will improve the performance of organization.

Moreover, scholars like Schaufeli (2013) have argued that benefits given by the organization in the form of a good salary, recognition and development opportunities will oblige employees to respond and repay them by engaging themselves in the organization (Schaufeli, 2013). This idea has also been proven in another research conducted by Nawaz et.al. (2014) in Pakistan in examining the relationship among training, empowerment, employee engagement and creativity. They validated SET stating that a sense of commitment and positive engagement relationship is built between employee and organizations which invest in training and empowerment. Supporting this, Shantz et al. (2013) added some of the benefits for the organization including engaged employees who exhibit positive work attitude, implement basic knowledge of the business context and show effort to increase productivity for the organization (Shantz et al., 2013). Therefore, employee engagement within the ambit of SET demonstrates that in response to the resources they receive from their organizations, employees choose to engage themselves to varying degrees (Praveen & Kumra, 2020).

In this study, the engagements factors; work environment, training and development and rewards and recognition can be represented as positive action by the pharmaceutical company with reciprocation for employee engagement which further contributes to organizational performance. The hypothesis of the study that there is significant positive association between employee engagement and the factors; work environment, training and development and rewards and recognition and the mediating role of employee engagement with organizational performance can be explained from the aspects of SET. Thus, this justifies the choice of social exchange theory as the underpinning theory for this study supporting the theoretical framework proposed.

Employee Engagement and Performance Model

The following model has been adopted for this research where three main factors of employee engagement; working environment, training and development and rewards and recognition and its relationship towards employee engagement has been studied. Further the mediating role of employee engagement in contributing towards organizational performance have been examined. The below model has been proposed and validated by Anitha (2014) on her research on determinants of employee engagement and their impact on employee performance (Anitha, 2014).

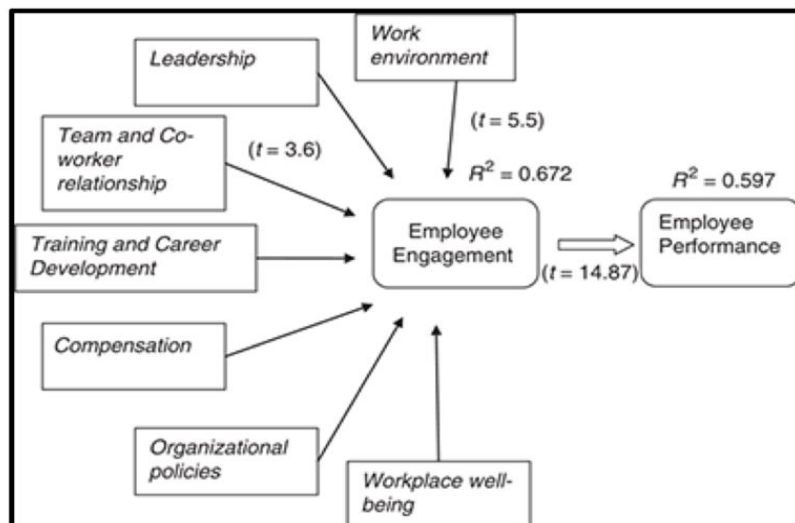


Figure 3 Model of Employee Engagement and Employee Performance

Adapted from “Determination of Employee Engagement and their Impact on Employee Performance”, by Anitha J., 2013, International Journal of Productivity and Performance Management, Vol. 63, p. 308-323 (10.1108/IJPPM-01-2013-0008) Emerald Group Publishing Limited.

Research Framework

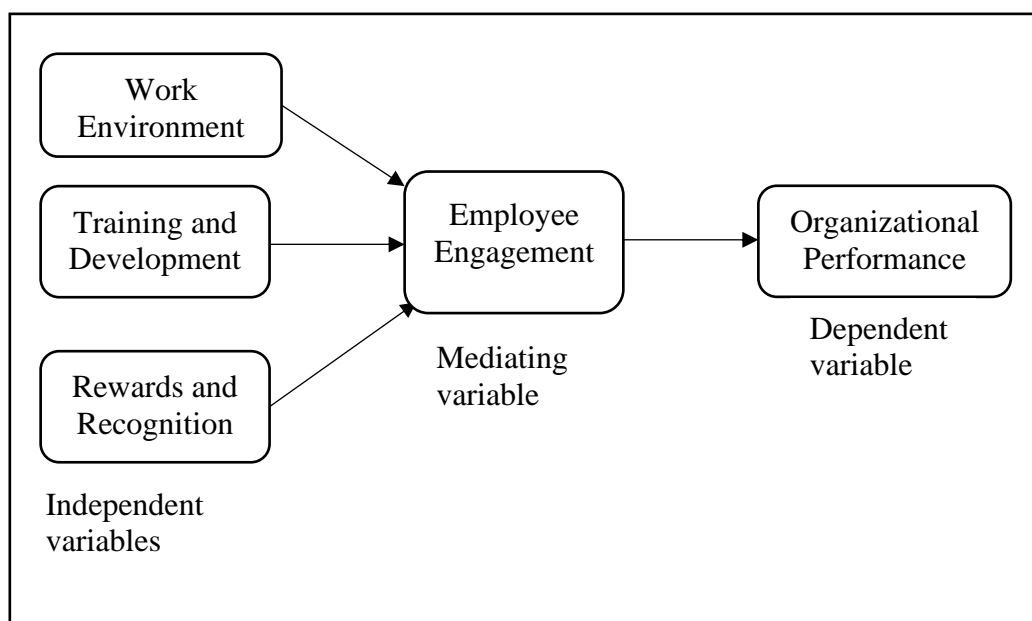


Figure 4 Framework for Employee Engagement and Organizational Performance

Research Philosophy

Research philosophy is also called as research paradigm is a basic belief system or world view that guides the investigation (Guba and Lincoln, 1994). Positivist paradigm and interpretive paradigm are the two classifications of research philosophy. As per Crotty (1998), in quantitative research, positive paradigm is a methodological philosophy where methods of natural sciences are applied to discover the study of social science (Crotty, 1998). Supporting

this, Hammersley (2013) stated that a phenomenon in reality it has to be measured and supported by evidence to be understood (Hammersley, 2013).

Meanwhile, the interpretive paradigm is based on social life that studied qualitatively through direct observation, interview, and case studies (Newman, 2011). It is also known as constructivist or phenomenologist. The choice of the research paradigm depends on the nature of research subject and the question being attended. Hence, the quantitative approach of the positivist paradigm is best suited for adoption of this study based on the research questions and objectives.

Research Design

A research design describes the method for collecting, analysing, interpreting and reporting data in research studies (Creswell & Plano, 2007). Similar explanation has been provided by Grey (2014), where he stated that the research design explains methods for data collection and analysis and how research questions are being addressed using the data interpretation. There are three possible types of research design, which are, exploratory, descriptive and explanatory and this classification depends on the objective of the research (Robson, 2002). Exploratory research is conducted when there are very few or no earlier studies to which we can refer for information about the issue or problem. Meanwhile, descriptive research is undertaken in order to observe and explain the characteristics of variables in a situation. On the other hand, explanatory or hypothesis testing describes the nature of the relationships among variables involved in the study (Zikmund, 2010; Sekaran, 2006). This study adopts the explanatory design as it is aimed to examine the association and statistical link of factors of employee engagement such as work environment, training and development and rewards and recognition with employee engagement and explore the mediating effect of employee engagement towards organizational performance.

Further, quantitative cross-sectional research setting will be used in this study as it employs one-time data collection in a certain selected period of time. The advantage of this method is that it is economical and takes shorter time than longitudinal study which involves collecting data over extended period of time. Some of the similar studies that have used cross sectional methods are findings on resource development (HRD) practices on Ghanaian pharmaceutical industry's performance by (Otoo et al., 2018; Qureshi & Aleemi, 2018; Songkhla et al., 2020). Thus, it can be deduced that quantitative cross-sectional method is widely used by researchers studying similar area and is suitable for the current study.

In addition, the data set involved in this study is primary data and it was collected using personal survey instrument method, where online questionnaire in *Google Forms* was distributed to collect samples. Previous researches show that survey research method enables the researchers to collect data from respondents to measure multiple variables and to test various hypotheses (Neuman, 1997). Self-report questionnaire is selected for this research as it is most widely used methods of data collection and it is used to measure constructs such as attitudes, values, intentions and preferences (Kraut, 2006). In today's networked environment, online or web-based survey tools have become common data collection instruments (Raju & Harinarayana, 2016). Further, Lin and Wang (2015) found that web-based surveys are more reliable than face to face surveys. Some of the advantages of web-based form is that faster response speed, low cost, high response rate (Cobanoglu et al., 2001). *Google Forms* are also an easy-to-use web interface for developing web-based survey questionnaires with various options for data capturing from multiple responses. The method

is also safer and convenient to use in the pandemic-stricken environment. Hence, *Google Forms* survey questionnaire was shared to the employees via email and Whatsapp application in collecting the data. The collected data was analyzed using SPSS Version 26 software for statistical interpretation, inferences and conclusions.

Population and Sample

The process of sampling design is usually inclusive of defining the population, determining the sampling frame, selecting the sample technique, determining the sample size and executing the sampling process (Malhotra et al., 2004). In defining the population, Bryman (2021) opined that it is a representation of universe of units that share common characteristics from which a sample is chosen. Also, it consists a collection of information whose properties are to be assessed in a specified research situation (Sekaran & Bougie, 2010). In another study, population is described as members of a well-defined class of people, events and objectives (Ary et al., 2002). While, Cresswell (2012) explained population as a group of people who share similar characters and other features that the researchers can identify and study (Cresswell, 2012). Hence, population encompass individuals who possess certain information of scholar's interest in addressing the research question. In this study, the population comprises of workforce from Putra Pharmaceuticals Sdn. Bhd.

Followed by, as per Greener (2008), sampling frame is defined as a list of all individuals from which the sample could be chosen (Greener, 2008). A sample frame can be a list consist of entire units in the population from which research sample will be selected. Further, Bryman (2007); Churchill (1999) have expressed that sampling frame is the sample units containing information to be achieved and entire number of items in population where sample is produced. Nonetheless, Hagu and Harris (1993) has stated that a good sampling frame can be portrayed as being complete and up-to-date, containing info about each unit that would be used to stratify the sample and population representing a list of well-defined members (Hagu & Harris, 1993). This research used the data from company sustainability report and annual report in ensuring sampling frame that is complete and updated. This study requires sample from full-time employees except top managements working in a pharmaceutical company in Malaysia, Putra pharmaceutical Sdn. Bhd. The workforce population in Putra Pharmaceutical Sdn Bhd is about 350 employees, with about 50 in top management people and 300 in middle management and below. This study focuses more on the population of employees who are from middle management and below as the factors of employee engagement and organizational performance might not be directly impactful on top management.

Moreover, as per to Henry (1990) sampling refers to the study of a small group of "cases" that represent the larger population and it is commonly used in research due to resource constraints that make it unfeasible for the researchers to collect data from the entire population (Henry, 1990; Saunders et al., 2009). There are several reasons for sampling including better speed of data collection, accuracy of result and cost efficiency (Cooper et al., 2003). Thus, studying a sample than the entire population will lead to more reliable results and it is less fatigue when the elements involved are many in number. The selection of sampling method may have theoretical and practical issues and it is dependent on the nature of the research. There are two types of sampling methods that is widely used in business research studies, probability sampling and non-probability sampling. Non-probability sampling technique consists of convenience sampling, judgemental sampling, quota sampling and snowball sampling. Meanwhile, probability sampling involves simple random sampling,

systematic sampling, stratified sampling and cluster sampling. As per Sekaran and Bougie (2010) the probability sampling is used when the representative and generalizability of the sample is important while non-probability sampling is used when time or other factors are critical than generalizability (Sekaran and Bougie, 2010). Convenience sampling method is selecting individuals that are easiest to access at random until the desired sample size is reached, and snowball sampling is contacting few individuals and requesting them to nominate other individuals until the desired sample size is reached (Saunders et al., 2009).

Non-probability sampling technique of quota sampling method will be employed in this study. It is used to collect info from sample where the groups being studied are proportional to the population being studied (Ganganpreet, 2017). As in current research, the group of interest are all employees except for top-management, quota sampling method can be used. Some of the advantages of quota sampling are quota sampling emerges as an attractive choice as primary data collection can be done in shorter time. Further, the application of quota sampling is cost-effective and not dependent on the presence of the sampling frames. However, the disadvantages of quota sampling are that the sampling error cannot be assessed, the projection of the research finding to the total population is risky and the sampling technique might be very representative of the quota-defining characteristics (Saunders, 2012). Hence, this method is convenient to be used in this study with focusing the samples with the defined characteristics.

The sample size in this research has to be suitably broad to access the characteristics of population in delivering a realistic outcome. Larger sample sizes reduce the sampling errors and avoids biases. Supporting this, McMillan & Schumacher (2001) stated that the sample size should be adequate to the study in estimating the features of the population suitably and offer a reliable outcome. The guiding principles of Krejcie and Morgan (1970) for sample size was adopted for this study. Based on above discussed sample population in Figure 3.1, there are about 300 employees therefore, according to Krejcie and Morgan Table (1970) sample size determination, 169 employees will be selected to serve as the sample size anticipated for this research.

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

Note: "N" is population size
"S" is sample size.

Source: Krejcie & Morgan, 1970

Figure 5 Sample Size Determination
(Source: Krejcie and Morgan, 1970)

Instruments and Measurements

The main instrument used is a questionnaire which has been finalized with the researcher's supervisor. The questionnaire is divided into six sections. Section A determines the demographic background of the respondents consisting questions about their gender, age, working experience, position and division. Section B, C, D, and E are parts of the instrumentation which aims test variables on employee engagement section F is related to organizational performance. Section B relates to work environment, Section C is about training and development, Section D focuses on rewards and recognition and Section E determines the level of employee engagement. For Section A, nominal scale was used to collect responses on respondent's demographic, while Section B, C, D, E and F was measured on a 5-point Likert scale with 1= strongly disagree and 5 = strongly agree. The items of the variables in the questionnaire were adapted from the few related previous studies on employee engagement. To standardize linguistic terms used, the statements were modified and rephrased as tabulated in Table 2.

Table 2
Operationalization and Measurement of Construct

Variables	Items	Original Statement	Modified Statement	References
Work Environment	WE1	The environment in this organization supports a balance between work and personal life	Working environment in my organization supports a balance between work and personal life.	O'Carrolln (2015)
	WE2	The pace of work in this organization enables me to do a good job	The pace of work in my organization enables me to perform and deliver a good job	
	WE3	My team work effectively together to meet our objectives	I feel team works are effective and enable to deliver job goals.	
	WE4	The amount of work I am asked to do is reasonable	The amount of work load on me is reasonable	
	WE5	Duties are equally divided between co-workers	The duties are being equally distributed among workers in my company	
	WE6	Employee is valued and involved actively in developing the working environment	I feel the employees in my company are being valued and involved in developing the working environment	

	WE7	There is a safe and healthy working condition	I feel the working environment is safe and healthy in my company	
	WE8	Relationships within employees and management are cooperative	There is a cooperative relationship between employees and management in my company	
Training and Development	TD1	Employee have access to verified learning and development opportunities	The employees have access to verified learning and development opportunities in my company.	Soliman& Wahba (2019)
	TD2	Employees have mastered the skills necessary to do their job well	The employees are equipped with necessary skills and knowledge for their job.	
	TD3	Manager provide the coaching and development to improve the performance	Managers in my company provide the coaching and development in improving the employee performance.	
	TD4	The company offers variety of training programmes for its employees	My company actively offers variety of related training programmes for employees.	
	TD5	The company provides opportunities for career growth and advancement	My company provides opportunity and supports employee career growth and advancement.	
Rewards and recognition	RR1	Good work and good performance is valued and rewarded by managers	Managers in my company value and reward good performances	Soliman& Wahba (2019)
	RR2	The company adopts a fair system of rewards and recognition for employees	My company's reward system is fair and proportional to the contributions of employees	

	RR3	Employee is receiving formal recognition for his effort in making a difference and for team accomplishments	Employees are rewarded formally for their efforts in making a difference and for team accomplishments in my company.	
	RR4	There is a reward package in the enterprise, containing of pay, bonuses, share options and benefits, combined with a workplace	There are reward packages in my company that contains bonus, share options and benefits.	
	RR5	There are many opportunities for career growth and other professional developments	As part of reward system, my company offers many opportunities for career growth and professional development.	
	RR6	The salary package, pays and perks of my company are on par with the best in the industry?	The rewards packages, pays and perks of the company are on par with the best in the industry.	
Employee engagement	EE1	I am willing to really push myself to reach challenging work goals	I really push myself to work beyond of what is expected of me in achieving challenging work goals.	Thomas (2007)
	EE2	I am prepared to fully devote myself to performing my job duties	I am fully focused and immersed in performing my job duties.	
	EE3	I get excited thinking about new ways to do my job more effectively	I feel excited thinking about new ways of performing my job more effectively.	
	EE4	I am enthusiastic about providing a high-quality product or service	I feel enthusiastic about providing a high-quality product or service doing my job.	

	EE5	I am always willing to "go the extra mile" in order to do my job well	I am willing to put in extra effort without being asked in completing my task well.	
	EE6	Trying to constantly improve my job performance is very important to me	I feel constantly trying to improve my job performance is very important.	
	EE7	My job is a source of personal pride	Working in my current company gives a great sense of pride and has personal meaning to me.	
	EE8	I am ready to put my heart and soul into my work	I feel sense of belonging and willing to put my heart and soul into my work.	
Organizational performance	OP1	Quality of products, services or programs	I believe my organization delivers good quality of products, services or programs.	Delaney & Huselid (1996)
	OP2	Development of new products, services, or programs	My organization encourage innovation and creative thinking in the development of new products, services and programs.	
	OP3	Ability to attract essential employees	My organization has the ability to attract and retain essential employees.	
	OP4	Relations between management and other employees	There is a good relation between management and other employees in my organization.	
	OP5	Open new market and product/service opportunities for the firm	My organization has seized new market and product and service opportunities.	Yang et al (2013)

	OP6	Achieve important cost efficiencies for the firm	My organization has achieved important cost efficiency.	
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Data Collection Procedures

In this study, data is collected through *Google Form* using self-reported questionnaire. It is more effective and have high influences on the level of satisfactory responses from the respondents (Dillman, 1978).

Pilot Test

A pilot study was conducted after the questionnaire was finalized. A sample of 30 individuals from the population was selected and given the questionnaire. This study was used to determine if the respondents understand the questionnaire, to seek for points in perfecting the questionnaire and also to ascertain time respondents to complete the survey. This was helpful to enhance the reliability and validity of the questionnaire used in the study.

Data Analysis

Data collected will be analyzed using SPSS software descriptive statistics measures such as mean (average), frequencies for demographic analysis of the respondents, and Pearson correlation matrix and regression analysis in finding the significant relationship between variables in the study.

Validity and Reliability

The validity and reliability test will be performed through SPSS software. Validity refers to the accuracy or extent to which the results really measures what they are supposed to measure. There are three common types for evaluate the validity, construct validity, content validity, face validity, and criterion-related validity. Questionnaire were verified and determined based on the judgements of the experts. Reliability of the questionnaire was tested using Cronbach Coefficient Alpha which measures the consistency of the data. The coefficient varies from 0 to 1 and if the alpha value is above 0.7 or less is considered unacceptable. In this study, the Cronbach's alpha value for all the constructs exceeded 0.7 which is considered an acceptable reliability coefficient (Nunnally and Bernstein, 1994; Sekaran, 2005). The Cronbach's alpha values for factors contributing to employee engagement and organizational performance gave an acceptable reliability level of 0.906, 0.873, 0.928, 0.876, and 0.909. The results indicate that all the questions in questionnaire are reliable and sufficient.

Table 3

The Cronbach's Alpha Reliability Test Results

Questions	Construct	Cronbach's α	Number of Items
WE1-WE8	Working Environment	0.906	8
TD1-TD5	Training and Development	0.873	5
RR1-RR6	Rewards and recognition	0.928	6
EE1-EE8	Employee engagement	0.876	8
OP1-OP6	Organizational Performance	0.909	6

Data Collection and Response Rate

During the data collection process, online questionnaires was distributed to 200 employees in the company, 105 responses were submitted initially, and another 46 responses received after sending reminder to the participants. Total of 151 responses received whereby the study originally targeted 169 responses. The response rate is 75.5%. The questionnaire was disseminated through emails, printed QR codes in the office and through WhatsApp groups. Thank you and appreciation message was sent out together to the respondents who participated in this survey.

Data Screening***Missing values***

The responses were complete as all questions were pre-set as a mandatory field. Using IBM Statistics SPSS 26, respondent's demographics are derived as shown in below table.

Descriptive Analysis***Demographic profile***

The gender composition of this study is in the proportionate of 60:40, female: male. There are 20% more female respondents than male respondents. As for age group, majority of the respondents are from 21-30 years old (57%) and 31-40 years old (29.8%), which represent 86.8% of the total respondents.

Table 4

Summary of Demographic Profile

espondents Demographics	Frequency	Percentage (%)
Gender		
Male	62	41.1
Female	89	58.9
Age		
21-30 years old	86	57.0
31-40 years old	45	29.8
41-50 years old	19	12.6
More than 50 years old	1	0.7
Length of Service		
Less than 1 year	19	12.6
1-3 years	44	29.1
4-6 years	55	36.4
7-10 years	23	15.2
More than 10 years	10	6.6
Department		
Research and Development	40	26.5
Finance and Procurement	12	7.9
Regulatory Affair	12	7.9
Quality Control and Assurance	33	21.9
Human Resource	7	4.6
Engineering	11	7.3
Information Technology	12	7.9
Marketing	13	8.6
Production	11	7.3
Job Rank		
Senior Management	0	0
Middle Management	21	13.9
Executive/Senior Executive	103	68.2
Non-Executive	27	17.9

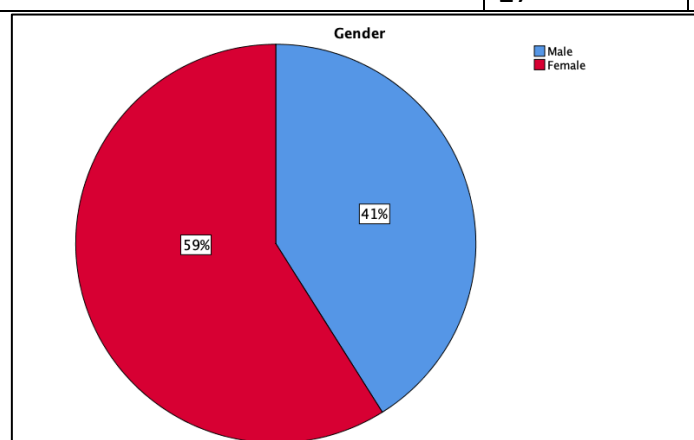


Figure 6 Gender

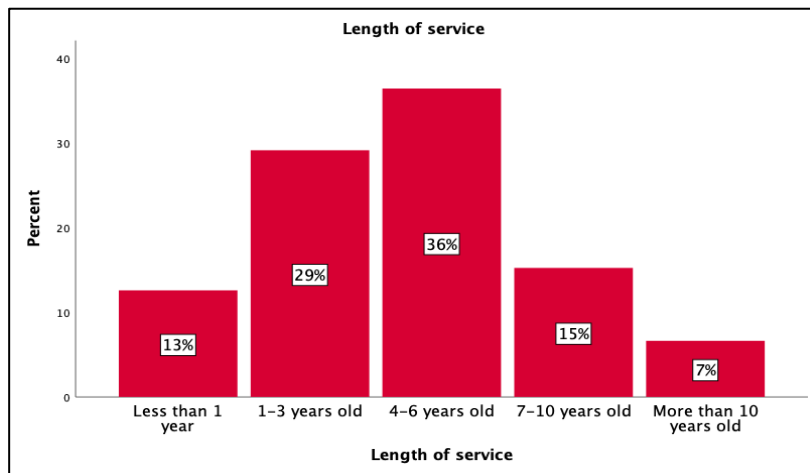


Figure 7 Length of service

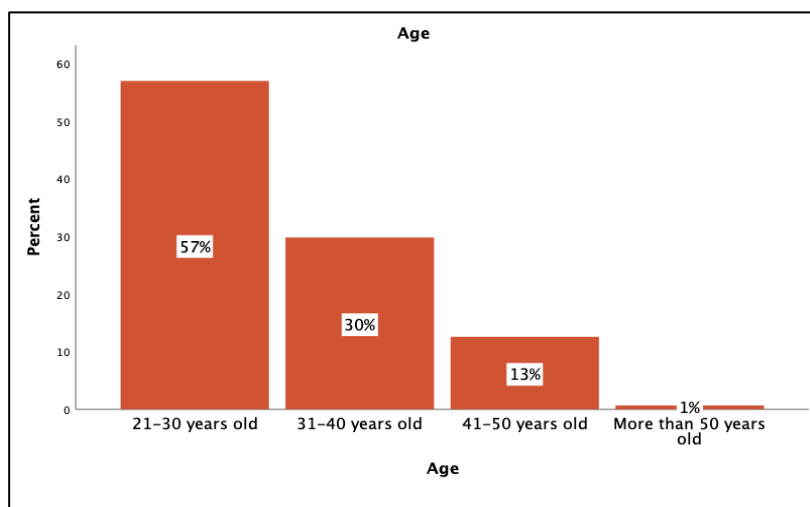


Figure 8 Age

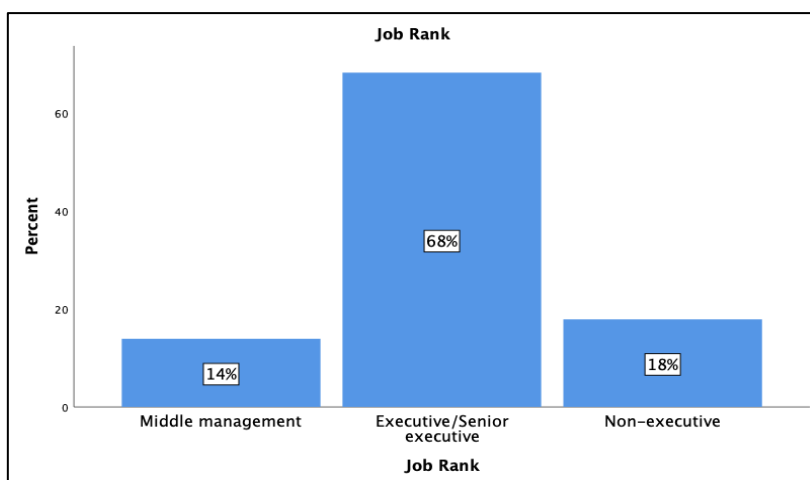


Figure 9 Job rank

Most of the respondents have 4-6 years (36.4%) and 1-3 years (29.1%) of working experience, representing of about 65.5% of total response. Meanwhile, only about 15.2% of respondents have served the organization for 7-10 years and about 6.6% have served for more than 10 years. As for the departments, almost half of the respondents are from research and

development (26.5%) and quality control and assurance (21.9%). The reason being the organization focuses more on research and development and quality of the pharmaceuticals they produce. The remaining responses are from other departments as shown in the pie chart below.

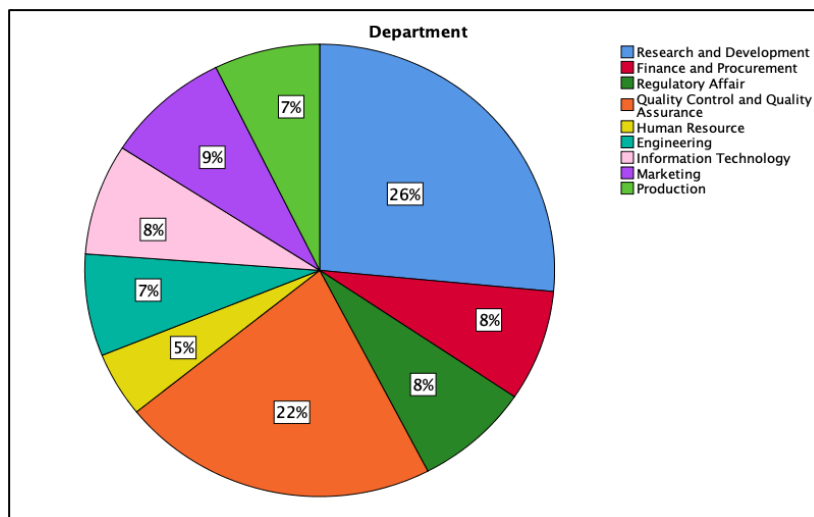


Figure 10: Respondent's Department

Majority of the respondents are from executive/senior executive level (68.2%), followed by non-executive (17.9%) and middle management (13.9%). There are no any respondents from senior management due to their availability and reachability.

Mean and Standard Deviation of Variable

Table 5 displays the mean and standard deviation of all items in the working environment. Mean scores for this construct are computed by equally weighting the mean scores of all items. The overall mean score for working environment is 3.611 on a five-point scale. The highest mean score is 4.04 and the lowest is 3.33. The standard deviation ranged from 0.852 to 1.121. The mean scores for working environment can be considered high. The minimum (min) and maximum (max) scores are also shown.

Table 5

Mean and Standard Deviation for Working Environment

Construct	Dimension	Mean	Median	Std. Deviation	Min	Max
Working environment	WE1	3.65	4.00	0.974	1	5
	WE2	3.77	4.00	0.852	1	5
	WE3	4.04	4.00	0.863	2	5
	WE4	3.54	4.00	1.025	1	5
	WE5	3.49	4.00	1.045	1	5
	WE6	3.47	4.00	1.057	1	5
	WE7	3.60	4.00	1.121	1	5
	WE8	3.33	3.00	1.031	1	5

Table 6

Mean and Standard Deviation for Training and Development

Construct	Dimension	Mean	Median	Std. Deviation	Min	Max
Training and Development	TD1	3.75	4.00	0.840	1	5
	TD2	3.83	4.00	0.728	2	5
	TD3	3.65	4.00	0.866	1	5
	TD4	3.58	4.00	0.934	1	5
	TD5	3.50	4.00	0.937	1	5

The mean and standard deviation of all items of training and development are presented. The overall mean scores for the items in training and development are 3.662. The mean scores for training and development ranged from 3.50 to 3.83 measured on a five-point scale. This shows that the training and development is high in Putra Pharmaceutical Sdn. Bhd.

Table 7

Mean and Standard Deviation for Rewards and Recognition

Construct	Dimension	Mean	Median	Std. Deviation	Min	Max
Rewards and Recognition	RR1	3.58	4.00	0.905	1	5
	RR2	3.30	4.00	1.046	1	5
	RR3	3.44	4.00	1.043	1	5
	RR4	3.58	4.00	1.010	1	5
	RR5	3.41	4.00	0.975	1	5
	RR6	3.36	4.00	1.054	1	5

Mean and standard deviation of all items of rewards and recognition are shown in table. The items were measured in five-point scale and the mean score ranged from 3.30 to 3.58 with overall mean score of 3.445. The standard deviation ranged from 0.905 to 1.054. The mean score shows that the score for rewards and recognition among employees in Putra Pharmaceutical is high.

Table 8

Mean and Standard Deviation for Employee Engagement

Construct	Dimension	Mean	Median	Std. Deviation	Min	Max
Employee engagement	EE1	4.06	4.00	0.635	1	5
	EE2	4.10	4.00	0.619	3	5
	EE3	3.92	4.00	0.753	2	5
	EE4	4.05	4.00	0.671	2	5
	EE5	4.09	4.00	0.663	1	5
	EE6	4.17	4.00	0.626	3	5
	EE7	3.78	4.00	0.871	1	5
	EE8	3.70	4.00	0.929	1	5

Table above depicts the mean and standard deviation value of employee engagement in Putra Pharmaceutical Sd, Bhd. The highest mean score observed is 4.17 and the lowest is 3.70, measured with five-point scale. The overall mean score is 3.98. This is relatively high mean score and it shows that the employee engagement score is good in Putra Pharmaceutical Sdn. Bhd.

Table 9

Mean and Standard Deviation for Organizational Performance

Construct	Dimension	Mean	Median	Std. Deviation	Min	Max
Organizational Performance	OP1	3.77	4.00	0.804	1	5
	OP2	3.76	4.00	0.806	1	5
	OP3	2.94	3.00	1.091	1	5
	OP4	3.17	3.00	1.018	1	5
	OP5	3.63	4.00	0.838	1	5
	OP6	3.46	4.00	0.971	1	5

The above table shows mean and standard deviation value of organizational performance in Putra Pharmaceutical. The items were measured on five-point scale. The construct's overall mean value is 3.45, the highest mean value is 3.77 and the lowest score is 2.94. The standard deviation of the construct ranges from 0.838 to 1.091. This indicates that even if some of the items has lower mean score, most of the item's score is good.

Multivariate Data Analysis

Multivariate data analysis is a statistical method that involves more than two dependent variables which results in a single outcome. It analyzes the relationship between multiple independent variables and a dependent variable (Hair et al., 2010). It includes multiple regression analysis and multicollinearity.

Normality

Normality is an important test procedure in performing statistical analysis such as mean, correlation, variance and etc. It will determine if the assumptions made about our data are normally distributed is violated. Using the test method developed by Shapiro and Wilk, the departures from normality due to skewness or Kurtosis can be detected (Adefisoye et al., 2016). Skewness measures the symmetry of a distribution while Kurtosis measures the combined weight of a distribution's tail relative to the centre of the distribution. A kurtosis value of near zero (0) represents a shape close to normal distribution and a positive kurtosis value indicates distribution that is more peaked than normal. Meanwhile, a negative value for kurtosis indicates a flatter shape than normal. Kurtosis value around ± 1.0 is considered good for most analysis, while ± 2.0 is acceptable in many cases. In similar way, skewness can be interpreted. A value of zero (0) for skewness indicates an evenly balanced distribution and a positive skewness indicates a greater number of smaller values. Meanwhile, a negative skewness indicates a greater number of larger values. Just like Kurtosis, a skewness value between ± 1.0 is considered good for most analysis, while ± 2.0 is acceptable in many cases (George & Mallery, 2020).

Table 10

Skewness and Kurtosis

Variables	Mean	Std. Deviation	Skewness		Kurtosis	
			Statistic	Std. Error	Statistic	Std. Error
Working Environment	3.6109	.77682	-.416	.197	-.337	.392
Training and Development	3.6623	.70359	-.732	.197	1.026	.392
Rewards and Recognition	3.4437	.86322	-.411	.197	-.348	.392
Employee engagement	3.9834	.53399	-.055	.197	.014	.392
Organizational Performance	3.4547	.76930	-.238	.197	.157	.392

The kurtosis and skewness values of the variables are between ± 1.0 which is considered as a good data distribution and the assumptions made that data follows normal distribution can be accepted.

Multicollinearity

Multicollinearity analysis determines if the degree of correlation between two or more independent variables are high which can cause problems in fitting and interpreting the regression model. Variance inflation factor (VIF) can be used in determining the correlation and strength of correlation between the predictor variables in regression model and tolerance is the measure of collinearity. Values of VIF should be more than 10 and value of tolerance should not be less than 0.10.

Table 11

Tolerance and Variance Inflation Factor

Variable	Tolerance	VIF
Working Environment	0.342	2.926
Rewards and recognition	0.275	3.641
Training and development	0.369	2.709
Employee engagement	0.635	1.576

The results indicate that no tolerance value is lesser than 0.1 and no VIF value greater than 10. Thus, the conditions of multicollinearity were satisfied with the collinearity results obtained.

Factor Analysis

Factor analysis is a statistical technique that is used to extract maximum common variance from all variables and puts them into a common score. The measure also tests the construct validity to check how well the results represent good fitness with the theories available. The suitability of the data must be assessed before conducting the factor analysis. Kaiser Meyer-Olkin (KMO) measure of sampling adequacy and Barlett's test of Sphericity can be used to assess the factorability. If $p < 0.05$, the Barlett's test of Sphericity is considered as significant

and KMO statistics should be at a minimum of 0.6. The important variables of this study were submitted to Principal Component Analysis (PCA) to determine their factor loading. Only variable with loading of 0.32 and above should be considered (Tabachnick & Fidell, 2011).

Factor Analysis for Organizational Performance

Prior to performing the PCA, the suitability of the data for factor analysis was assessed and items with factor loadings of below 0.32 was removed. KMO was used to assess the factorability of data.

Table 12

KMO and Bartlett's Test for Organizational Performance

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.888
Bartlett's Test of Sphericity	Approx. Chi-Square	565.170
	df	15
	Sig.	.000

Table 12 shows the KMO value of 0.888 which is adequate for factor analysis and the Bartlett's Test of Sphericity is $p < 0.000$ which is significant.

Table 13

Factor analysis for Organizational Performance

No	Items	Factor Loading
1	OP 1	0.653
2	OP 2	0.563
3	OP 3	0.704
4	OP 4	0.644
5	OP 5	0.787
6	OP 6	0.808
Percentage of Variance		46.975%

Table 13 shows the result of the factor analysis. The varimax principal components analysis was used which permits each variable to load on a single factor. The analysis revealed factor structure that explained 46.975 percent of variance and the factor loadings for all six items were between 0.563 to 0.808, thus, no items were removed. As per the rotated component matrix, the first factor represents organizational performance.

Factor Analysis for Employee engagement

Table 14

KMO and Bartlett's Test for Employee Engagement

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.855
Bartlett's Test of Sphericity	Approx. Chi-Square	608.657
	df	28
	Sig.	.000

Table below shows KMO value of 0.855, and the Barlett's Test of Sphericity of $p < 0.000$ which is significant. Hence, the construct is adequate for factor analysis.

Table 15

Factor analysis for Employee Engagement

No	Items	Factor Loading
1	EE 1	0.670
2	EE 2	0.703
3	EE 3	0.734
4	EE 4	0.729
5	EE 5	0.743
6	EE 6	0.792
7	EE 7	0.417
8	EE 8	0.451
Percentage of Variance		69.235%

The analysis showed factor structure that explained 69.235 percent of variance and the factor loading value for eight items are between 0.417 to 0.792, hence, no items were deleted. As per the rotated component matrix, the fifth factor represents employee engagement.

Factor Analysis for Working Environment

Table 16

KMO and Barlett's Test for Working Environment

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.898
Bartlett's Test of Sphericity	Approx. Chi-Square	734.825
	df	28
	Sig.	.000

Table 16 shows the KMO value of 0.898, and the Barlett's Test of Sphericity which is significant at $p < 0.000$. Therefore, the construct is adequate for the factor analysis.

Table 17

Factor Analysis for Working Environment

No	Items	Factor Loading
1	WE 1	0.781
2	WE 2	0.699
3	WE 3	0.528
4	WE 4	0.679
5	WE 5	0.596
6	WE 6	0.578
7	WE 7	0.581
8	WE 8	0.516
Percentage of Variance		56.134%

Table 17 shows the results of the factor analysis that explains 56.134 percent of the variance. The factor loadings for all eight items were between 0.516 to 0.718, thus, no items were removed. As per the rotated component matrix, the second factor represents working environment.

Factor Analysis for Rewards and Recognition

Table 18

KMO and Bartlett's Test for Rewards and Recognition

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.913
Bartlett's Test of Sphericity	Approx. Chi-Square	671.043
	df	15
	Sig.	.000

Table 18 shows the KMO value of 0.913 and the Bartlett's Test of Sphericity at $p < 0.000$ which is significant. Hence, the construct is adequate for the factor analysis.

Table 19

Factor Analysis for Rewards and Recognition

No	Items	Factor Loading
1	RR 1	0.443
2	RR 2	0.575
3	RR 3	0.583
4	RR 4	0.536
5	RR 5	0.548
6	RR 6	0.753
Percentage of Variance		66.033%

Table 19 reveals one factor structure that explains 66.033 percent of the variance. Factor loadings for all six items recorded a loading value between 0.443 to 0.753, therefore no items

were deleted. As per the rotated component matrix, the fourth factor represents rewards and recognition.

Factor Analysis for Training and Development

Table 20

KMO and Bartlett's Test for Training and Development

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.830
Bartlett's Test of Sphericity	Approx. Chi-Square	360.852
	df	10
	Sig.	.000

Table 20 shows the KMO value of 0.830 and the Bartlett's Test of Sphericity at $p < 0.000$ which is significant. Hence, the construct is adequate for the factor analysis.

Table 21

Factor Analysis for Training and Development

No	Items	Factor Loading
1	TD 1	0.710
2	TD 2	0.664
3	TD 3	0.658
4	TD 4	0.765
5	TD 5	0.618
Percentage of Variance		61.609%

Table 21 reveals one factor structure that explains 61.609 percent of the variance. Factor loadings for all five items shows a loading value between 0.618 to 0.765, thus, no items were removed. As per the rotated component matrix, the third factor represents training and development.

Correlation Analysis

Pearson Correlation is most commonly used method for numerical variables. It measures the extent of association indicated in quantitative forms, determine the degree of change in variable values that is related to the change in value of the other variable (George, 2011). Pearson Correlation is conducted in this study to determine the relationship between independent mediating and dependent variables. By conducting Pearson Correlation, the relationship between the three independent variables; working environment, training and development and rewards and recognition against organizational performance has been identified. The strength of mediating variable; employee engagement over organizational performance also has been determined. Pearson correlation assigns value between -1 to 1 representing positive and negative correlation, 0 is considered as no correlation (David, 2014).

Table 22

Correlation Factor

	WE	TD	RR	EE	OP
Working Environment (WE)	1				
Training and development (TD)	0.680	1			
Rewards and recognition (RR)	0.794	0.766	1		
Employee engagement (EE)	0.542	0.565	0.517	1	
Organizational Performance (OP)	0.684	0.672	0.761	0.580	1

*Correlation is significant at 0.01 level (2 tailed)

The correlation results show that the three independent variables of working environment, training and development, and rewards and recognition are all positively and significantly correlated to the dependent variable of organizational performance. The mediating variable of employee engagement also correlates positively and significantly with organizational performance. The correlation analysis will only show the association, strength and the nature of the relationship between variables. The predictor nature of the variables can be only determined by multiple regression analysis.

Regression Analysis

Regression analysis analyzes the relationship between one dependent variable and one or multiple independent variables. Regression analysis provides beta value (β) that is useful in interpretation of the relationship between independent and dependent value. The β value denotes the amount of increase or decrease in dependent variable for a unit of difference in the independent variable. The R square (R^2) value is the percentage of the total variation in the dependent variable values attributable to the independent variable in a regression equation. The F value represents the overall convenience of the regression model in analyzing, predicting or explaining the variation in the dependent variable. Level significant of 0.05 was applied in the regression. If the $P < 0.05$, the relationship is said to be significant, meanwhile, if the $P > 0.05$, the relationship is not significant.

Simple linear regression was conducted to interpret the relationship with employee engagement and dependent variable, organizational performance. Multiple regression analysis was conducted for independent variables: training and development, rewards and recognition, working environment; mediating variable: employee engagement and dependent variable of organizational performance. The main aim is to determine the significant relationship between the three independent variable and the dependent variable. Moreover, it will help to identify the independent variable that has more predictive power towards the dependent variable. The outcomes of simple regression analysis are as shown in Table 4.20 - Table 4.22 and multiple regression analysis are as shown in Table 4.23 - Table 4.25.

Simple Linear Regression Analysis

Table 23

Simple Linear Regression Coefficients Test Results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.126	.386		.326	.745
	Employee engagement	.836	.096	.580	8.692	.000

a. Dependent Variable: Organizational Performance

It can be concluded that employee engagement ($\beta = 0.580$, $t = 8.692$, $p < 0.00$) have significant positive relationship with organizational performance as the p-value is $p < 0.05$.

Table 24

Simple Linear Regression Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.580 ^a	.336	.332	.62877

a. Predictors: (Constant), Employee engagement

The R value is 0.580 and the R^2 value is 0.336. This shows that the employee engagement accounted for 33.6% of variance in organizational performance ($R^2 = 0.336$, $F = 75.544$, $P < 0.000$). As per Cohen's classification, the adjusted R^2 value of 0.336 is moderate. The coefficients for all predictor variables are positive.

Table 25*Simple Linear Regression ANOVA Test Results***ANOVA^a**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	29.866	1	29.866	75.544	.000 ^b
	Residual	58.908	149	.395		
	Total	88.774	150			

a. Dependent Variable: Organizational Performance

b. Predictors: (Constant), Employee engagement

Table shows ANOVA for multiple regression test that shows F value of 75.544 with significance of 0.000. This shows that there is a significant relationship between the mediating variable of employee engagement and organizational performance.

Multiple Regression Analysis

Table 26

Multiple Regression Coefficients Test Results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.245	.197		11.396	.000
	Working Environment	.196	.076	.285	2.596	.010
	Training and Development	.272	.079	.359	3.447	.001
	Rewards and Recognition	.010	.078	.016	0.127	.899

a. Dependent Variable: Employee Engagement

Table 26 represents the multiple regression coefficient test results for the variables. It can be concluded that working environment ($\beta = 0.285$, $t = 2.596$, $p < 0.010$), and training and development ($\beta = 0.359$, $t = 3.447$, $p < 0.001$) have significant positive relationship with employee engagement as the p-value is $p < 0.05$. Meanwhile, reward and recognition ($\beta = 0.016$, $t = 0.127$, $p < 0.899$) showing non-significant relationship with employee performance.

Table 27

Multiple Regression Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.604 ^a	.365	.352	.42971

a. Predictors: (Constant), Rewards and Recognition, Training and Development, Working Environment

Table 27 is the model summary table showing how the variables are related to each other. The R value is 0.604 and the adjusted R^2 value is 0.352. This shows that the three predictors accounted for 35.2% of variance in employee engagement ($R^2 = 0.365$, $F = 28.210$, $P < 0.000$). As per Cohen's classification, the adjusted R^2 value of 0.365 is moderate. The coefficients for all predictor variables are positive. However, training and development have more predictive value ($\beta = 0.359$, $p < 0.01$) compared to working environment ($\beta = 0.285$, $p < 0.010$, and rewards and recognition ($\beta = 0.016$, $p < 0.899$). This indicates that a change in rewards and recognition results in 0.016 change in employee engagement, change in working environment will have change of 0.285, change in training and development will have change of 0.359 and change in employee engagement.

Table 28

*Multiple Regression ANOVA Test Results***ANOVA^a**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.627	3	5.209	28.210	.000 ^b
	Residual	27.144	147	.185		
	Total	42.771	150			

a. Dependent Variable: Employee engagement

b. Predictors: (Constant), Rewards and Recognition, Training and Development, Working Environment

Table 28 exhibits ANOVA for multiple regression test that shows F value of 28.210 with significance of 0.000. This shows that there is a significant relationship between the independent variable working environment, training and development, rewards and recognition with the variable of employee engagement.

Mediating Variable Analysis

Mediation analysis was done using SPSS Process v4.0 by Andrew (2022), with bootstrapping of 5000 and confidence interval level of 95%. The coefficient values between independent and dependent factor was determined. Followed by, coefficient factor between independent and dependent factor through mediating factor was analyzed. Total, direct and indirect effects of independent variable on dependent variable was determined. The independent factors in this study are working environment (WE), rewards and recognition (RR) and training and development (TD). Mediating variable is employee engagement (EE) and dependent variable is organizational performance (OP). The figure below shows simple mediation model of EE on the variables. Interpreting the data, if zero is not included in the confidence interval then there is a significant indirect effect leading to mediation.

Mediation effect can be categorized as full mediation, partial mediation, no mediation along with the suppression of mediation and inconsistent mediation. Full mediation occurs when there is a zero direct effect between the independent and dependent variable, partial mediation is occurs when the mediating variable leads to some relationship between the two variables but not equals to zero, while no mediation occurs when there is non-significant indirect effect in presence of mediator (Sidhu et al., 2021).

Mediation of Employee Engagement between Working Environemnt and Organizational Performance

The figure below shows mediating effect of employee engagement on working environment and organizational performance. Path a' is representing coefficient value between working environment and employee engagement, path b' showing the coefficient value between employee engagement and organizational performance and path c' represents the relationship between working environment and organizational performance.

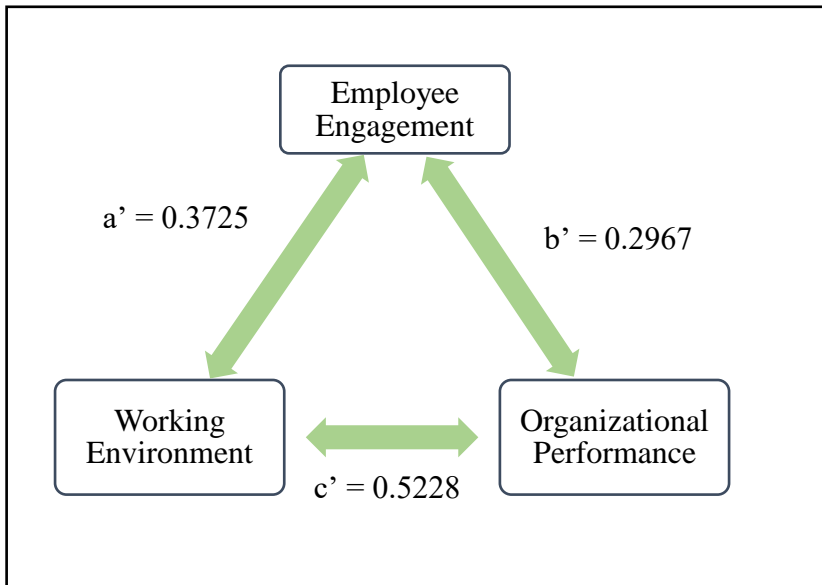


Figure 11 Mediation effect of Employee Engagement on Working Environment and Organizational Performance

Table 29

Mediation analysis between Working Environment and Employee Engagement

Outcome Variable: Employee Engagement						
Model Summary						
	R	R-sq	F	p	df1	df2
	.5419	.2936	61.9297	.0000	1.0000	149.000
Model						
	coeff	se	t	p	LLCI	LLUI
Constant	2.6385	.1748	15.0950	.0000	2.2931	2.9839
WE	.3725	.0473	7.8695	.0000	.2789	.4660

Table 30

Mediation analysis between Working Environment to Organizational Performance and Employee Engagement to Organizational Performance

Outcome Variable: Organizational Performance						
Model Summary						
	R	R-sq	F	p	df1	df2
	.7277	.5295	83.2835	.0000	2.0000	148.0000
Model						
	coeff	se	t	p	LLCI	ULCI
Constant	-.1178	.3279	-.3592	.7200	-.7658	.5303
WE	.5178	.0664	7.7934	.0000	.3865	.6490
EE	.4275	.0966	4.4234	.0000	.2365	.6185

The a' and b' confidence intervals, lower limit confidence interval (LLCI) and upper limit confidence interval (ULCI) show non zero values, which indicates a significant mediation effect of employee engagement between working environment and organizational performance. The indirect effect of working environment on organizational performance is 0.1592 and total effect is 0.6770. This represents about 23.52% indirect effect from total effects of working environment on organizational performance. It can be concluded that there is a partial mediation effect on this model.

Mediation of Employee Engagement between Training and Development and Organizational Performance

The figure below shows mediating effect of employee engagement on training and development and organizational performance. Path a' is representing coefficient value between training and development and employee engagement, path b' showing the coefficient value between employee engagement and organizational performance and path c' represents the relationship between training and development and organizational performance.

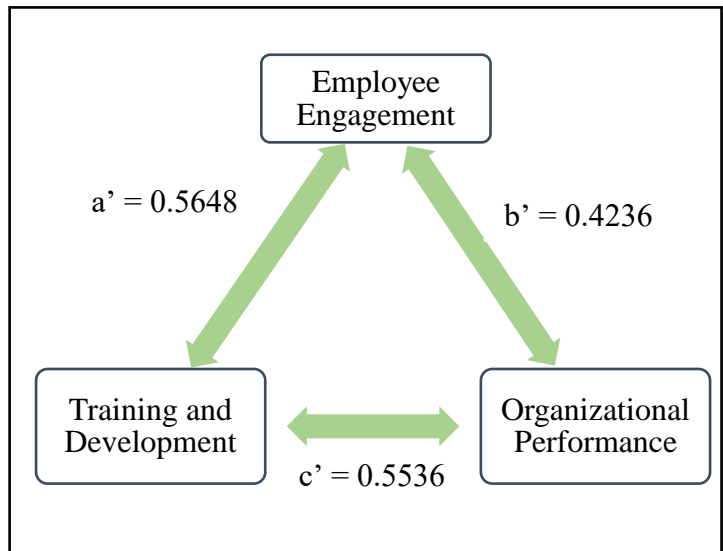


Figure 12: Mediation effect of Employee Engagement on Training and Development and Organizational Performance

Table 31

Mediation analysis between Training and Development and Employee Engagement

Outcome Variable: Employee Engagement						
Model Summary						
	R	R-sq	F	p	df1	df2
	.5648	.3190	69.8017	.0000	1.0000	149.0000
Model						
	coeff	se	t	p	LLCI	LLUI
Constant	2.4136	.1913	12.6154	.0000	2.0355	2.7916
TD	.4287	.0513	8.3547	.0000	.3273	.5301

Table 32

Mediation analysis between Training and Development to Organizational Performance and Employee Engagement to Organizational Performance

Outcome Variable: Organizational Performance						
Model Summary						
	R	R-sq	F	p	df1	df2
	.7148	.5110	77.3288	.0000	2.0000	148.0000
Model						
	coeff	se	t	p	LLCI	ULCI
Constant	-.2602	.3370	-.7721	.4413	-.9262	.4058
TD	.5536	.0762	7.2687	.0000	.4031	.7041
EE	.4236	.1004	4.2216	.0000	.2253	.6220

The a' and b' confidence intervals, lower limit confidence interval (LLCI) and upper limit confidence interval (ULCI) show non zero values, which indicates a significant mediation effect of employee engagement between training and development and organizational performance. The indirect effect of training and development on organizational performance is 0.1816 and total effect is 0.7352. This represents about 24.70% indirect effect from total effects of training and development on organizational performance. It can be concluded that there is a partial mediation effect on this model.

Mediation of Employee Engagement between Rewards and Recognition and Organizational Performance

The figure below shows mediating effect of employee engagement on rewards and recognition and organizational performance. Path a' is representing coefficient value between rewards and recognition and employee engagement, path b' showing the coefficient value between employee engagement and organizational performance and path c' represents the relationship between rewards and recognition and organizational performance.

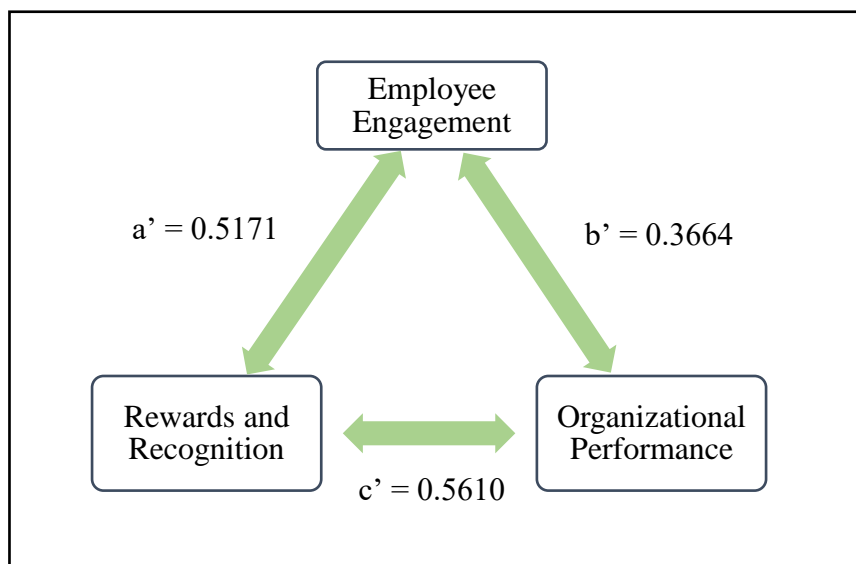


Figure 13 Mediation effect of Employee Engagement on Rewards and Recognition and Organizational Performance

Table 33

Mediation analysis between Rewards and Recognition and Employee Engagement

Outcome Variable: Employee Engagement						
Model Summary						
	R	R-sq	F	p	df1	df2
	.5171	.2674	54.3908	.0000	1.0000	149.0000
Model						
	coeff	se	t	p	LLCI	LLUI
Constant	2.8818	.1540	18.7176	.0000	2.5776	3.1861
RR	.3199	.0434	7.3750	.0000	.2342	.4056

Table 34

Mediation analysis between Rewards and Recognition to Organizational Performance and Employee Engagement to Organizational Performance

Outcome Variable: Organizational Performance						
Model Summary						
	R	R-sq	F	p	df1	df2
	.7918	.6270	124.4013	.0000	2.0000	148.0000
Model						
	coeff	se	t	p	LLCI	ULCI
Constant	.0622	.2907	.2140	.8308	-.5123	.6367
RR	.5613	.0523	10.7380	.0000	.4580	.6646
EE	.3664	.0845	4.3363	.0000	.1994	.5334

The a' and b' confidence intervals, lower limit confidence interval (LLCI) and upper limit confidence interval (ULCI) show non zero values, which indicates a significant mediation effect of employee engagement between rewards and recognition and organizational performance. The indirect effect of rewards and recognition on organizational performance is 0.1172 and total effect is 0.6785. This represents about 17.27% indirect effect from total effects of rewards and recognition on organizational performance. It can be concluded that there is a partial mediation effect on this model.

Summary of Hypotheses Tested

Table 35

Summary of Results for the Hypotheses Tested

No	Hypothesis	Result
Hypothesis 1	There is significant mediating effect of employee engagement towards organizational performance.	Supported
Hypothesis 2	There is significant relationship between work environment and employee engagement.	Supported
Hypothesis 3	There is significant relationship between training and development and employee engagement.	Supported
Hypothesis 4	There is significant relationship between rewards and recognition and employee engagement.	Not supported

Summary of Findings

The study had evaluated the factors contributing to employee engagement and investigated the relationship of three independent variable; working environment, rewards and recognition and training and development towards employee engagement, and thus its impact on organizational performance in Putra Pharmaceutical Sdn. Bhd. The mediating role of employee engagement on organizational performance also been examined as well. With a response rate of 75.5%, 151 responses were collected digitally from the target population of full-time employees who are from middle management and below. The data was then analysed in SPSS for demographic and descriptive test. Construct validity was performed with factor analysis and PCA, association between independent and dependent variable was conducted with Pearson correlation matrix and multiple regression analysis was employed for hypotheses testing.

The study outcome revealed that only three hypotheses are supported, with rejection of Hypothesis 4. The multiple regression analysis suggested statistically non-significant relationship between rewards and recognition and employee engagement with p value of 0.899 and β of 0.16. Meanwhile, working environment and training and development had a significant relationship with employee engagement, thus, Hypotheses 2 and Hypotheses 3 were accepted. The mediation analysis was performed with SPSS Process v4.0 by Andrew F.Hayes, and the findings revealed that employee engagement partially mediates the relationship between independent variables; working environment, training and

development and rewards and recognition. Thus, Hypothesis 1 was accepted, and the findings are further discussed.

Discussion and Recommendation

This study investigated the organizational performance with mediating impact of employee engagement in one of the newly emerging pharmaceutical manufacturing company, Putra Pharmaceutical Sdn. Bhd. The respondents of the study have 20% more composition of female participant than male participants. This is due to the overall demographic structure of employees in the organization, where there are more female employees comparably. As for the age of respondents, highest response was from age group of 21-30 years old, followed by 31-40 years old. This is because employees from 21-30 years old was easily approachable compared to older employees who are quite occupied with work. The highest number of participants were from those who have served the company for about 4-6 years and followed by 1-3 years of service. This is in accordance to the age of the respondents, most of the employees who are from 21-30 years old and 31-40 years old have served the company for at least 3 years. As for the department, many respondents are from research and development department and followed by others. This is due to the nature of business of the organization, that focused on innovation, hence having more employees from research and development. Besides, the employees from other department such as production and engineering were not easily approachable due to work nature. For the same reason, there were no any respondents from senior management group, while most of the participants are from executive or senior executive category.

The outcome of data analysis is as shown in Figure 14 and it revealed that training and development is the greatest predictive variable of employee engagement in Putra Pharmaceutical Sdn. Bhd.

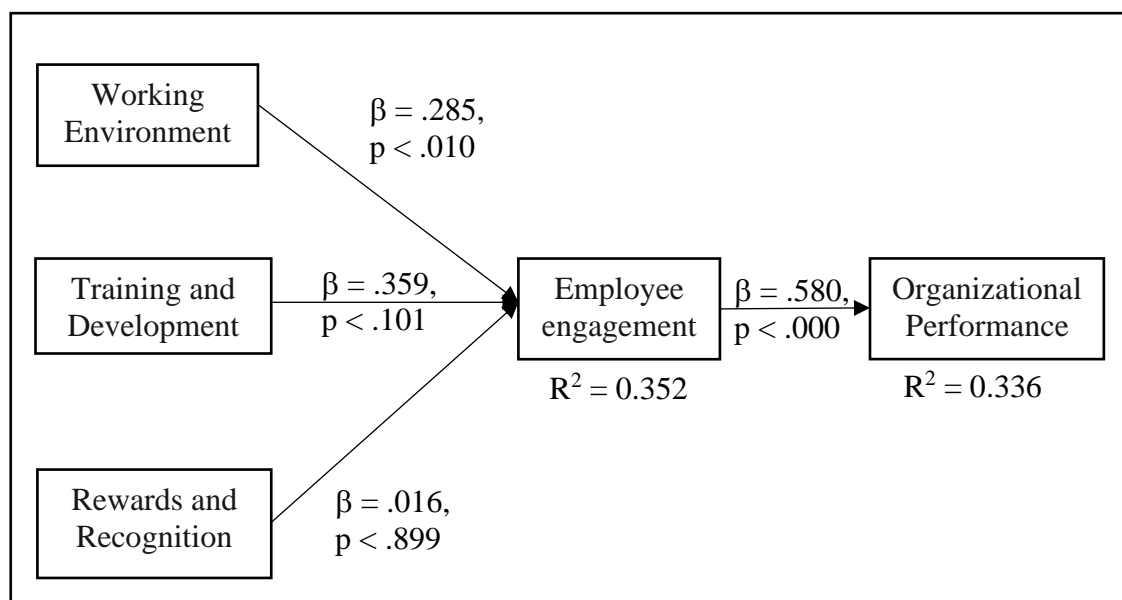


Figure 14 Outcome of Analysis

Results showed that pharmaceutical companies such as Putra Pharmaceutical Sdn. Bhd. have a huge contribution towards employee engagement with training and development. Training and development can be referred as the procedure and technique involved in refining the

aptitude, skills, ability, attitude of employees to perform their specific work (Aswathappa, 2005). This finding confirms that employee engagement can be increasingly cultivated in research and manufacturing based organizations such as Putra Pharmaceutical Sdn. Bhd. by offering various form of technical and skills-oriented training programs. It is in consonance with previous studies that states training and development provides sense of fulfillment to employees as they develop employee skills and improve their engagement (Ahmadi et al., 2012; O'Carrolln, 2015). This is further supported by Alderder (1972), suggesting that training programs are equivalent to rewarding people as organizations offer employees a chance to grow.

In another study, significant positive relationship has been found between training and employee engagement which improve employee performance in terms of competence, responsiveness and productivity (Sendawula et al., 2018). Training and development also promote innovation and creativity in the workplace which is important traits in research and development-based organization. It enhances service accuracy and thereby influences service performance and employee engagement (Paradise, 2008). As it helps employees to concentrate on their work, training and career development is considered as an important dimension of engaging employees. Thus, it is suggested that the managers of this industry to explore strengths areas of employees for development and develop opportunities for enhancing skills and capabilities (Ahmadi et al., 2012; O'Carrolln, 2015) in effort to increase employee engagement. Especially, in the context of pandemic, extensive training and development had helped employees to keep up with the challenging situations of heightened drug product manufacturing. Virtual trainings have become the popular alternative for continuous training and development programs in equipping employees with the latest knowledge and expertise. In pharmaceutical industry, it is vital for the employees to be trained with current good manufacturing practice (CGMP) in ensuring high level of compliance and requirements (PharmTech, 2020). It also allows the employees to stay up to date on the rapid innovations and new findings of the field. Hence, training and development act as a strong motivator among the employees and improves the employee engagement. The third hypothesis of the study is accepted as there is a significant relationship between training and development and employee engagement.

Moreover, this study has found that working environment as another predictor of employee engagement which is in accordance with past studies (Almotawa & Shaari, 2020). The study stated that workplace spirituality creates employees' spirit which is positively and significantly associated with employee engagement. This proves that positive and supportive culture can improve employee engagement. Positive work environment is anticipated to provide a platform for shared sense of destiny with others and encourages employees to connect emotionally with one another in achieving high levels of engagement. Islam and Shazali (2011) also agreed that decent physical working environment leads to better service to customers and supports higher output (Islam and Shazali, 2011). Generally, work environment is influenced by factors such as the interpersonal relationships, safety, support, trust, openness, flexibility and lack of threat (Kahn, 1990) and relationships within the workplace (Attridge, 2009; Saks, 2006). Richman et al (2008) have opined that organization's flexible work-life policies have notable positive impact on employee engagement. This results also been supported by the outcome of study done by Anitha (2013), where it is important to have supporting working environment as it shapes and directs employee engagement. Thus, the

management have to always ensure a positive and vibrant working environment in boosting employee engagement.

Amid the workplace shake-up of COVID-19, many companies including pharmaceutical organizations reassessed the idea of working from home even it has posed multitude of challenges such as communication, collaboration and forcing teams to look for ways to stay connected. While many of the workforce worked from home, some of the employees of pharmaceutical industry had to be present in labs and manufacturing facilities to ensure the continuity of drug product production. In a time of global health fears due to COVID-19, the pressure for pharma company such as Putra Pharma Sdn.Bhd. built up to stay ahead among other pharmaceutical manufacturers to scoop a heap of revenue with new drug development and the become reputable pharma company on worldwide platform. Along with investigating the new medicine for COVID-19, the pharma companies also had to ensure regular production of other medicines so that treatment for other conditions were not impacted. This upheaving situation created a stressful environment to the employees. Hence, the management of the companies have to recognize the circumstances and change in working environment faced by employees and provide solutions such as flexibility in workplace to fosters a culture that enables to innovate through diversity of thoughts while mitigating the stress. When, the employees feel comfortable with the working environment, despite the new challenges, engagements with work and organization can be further improved. The second hypothesis of this study is accepted as there is significant relationship between work environment and employee engagement.

In addition, this study has found that rewards and recognition does not have a significant relationship with employee engagement of Putra Pharmaceutical Sd. Bhd. This intriguing finding is against the argument of another author stating compensation or rewards are indispensable attribute to employee that motivates employees to achieve more (Jagannathan, 2013). Rewards and recognition are also seen to be significant antecedents of employee engagement as level of engagement is perception of benefits received from employer (Kahn, 1990; Saks & Rotman, 2006;). Meanwhile, Almotawa and Shaari (2020) found a negative relationship between employee engagement and rewards and recognition supporting the findings of this study. The reduced influence of rewards and recognition over employee engagement can be a consequence of the pandemic. Pharmaceutical industry is one of the essential sectors that had benefited with supplying medicines all over the world during the pandemic. A plausible justification for the result could be that, due to demanding situations of COVID-19, pharmaceutical companies generated good fortune of revenues where the employers were affordable to provide a decent rewards and recognition despite the situation. As of March 2022, Pharmaniaga Sdn Bhd has been reported to earn a net revenue of RM 172.15 million by supplying SinoVac COVID-19 vaccine, while for many well-established companies such as Pfizer, the annual revenue stream is stated to be more than gross domestic products of many countries (FreeMalaysiaToday, 2022). Thus, most of the employees in pharma industry were still well-paid and offered a good benefit packages regardless the challenging situation causing rewards and recognition to be poor predictor of employee engagement. The forth hypothesis of the study is rejected as there is no significant relationship between rewards and recognition and employee engagement.

Besides, the outcome of this study shows that there is a significant positive relationship between employee engagement and organizational performance. As per the regression analysis, it is found that employee engagement accounts for 58% of variance in organizational performance. Supporting this finding, the employee engagement established a positive relationship between work outcomes and organizational performance (Smith & Markwick, 2009; Schaufeli et al., 2002; Schaufeli & Bakker, 2004). In enhancing the overall sustainability and performance of the organization, managements have to continuously improve the employee engagement. Organizations perceives employee engagement as competitive advantage over others to survive the external threat and opportunities. Apontea and Zapata (2013) opined that engaged employees are aware of the organizational business environment and work well with colleagues in improving organizational output, especially in pandemic situation (Apontea and Zapata, 2013). Dedicated employees' participation in organizational success has increased job satisfaction and morale of the employees (Ahmed & Ansari, 2020). Employee engagement is found as an important predictor of organizational performance in Putra Pharmaceutical Sdn. Bhd. Thus, in retaining the employees and to motivate employee engagement, proactive approach by human resource professionals and management is critical.

The research findings indicated that there is a partial mediation effect of employee engagement over organizational performance in Putra Pharmaceutical Sdn Bhd. Supporting this result, Park et al (2021) have reported that employee engagement act as a mediator in encouraging affective organizational commitment and task performance in their study. Prior researchers also have found that employee engagement plays a mediating role in the relationship between work resources and performance (Airila et al., 2014; Kim et al., 2019; Saks & Gruman, 2014). In this study, working environment has more direct effect on organizational performance, partially mediated by employee engagement. Similar outcome was found for the other factors, training and development and rewards and recognition studied in this paper. Improvement on these factors has directly reflected on organizational performance.

A proper justification for this finding would be that nowadays, the employee population do not hold on to the idea of being tied with one organization for longer period of time. The median years of tenure with current employer for employees of 25 years and over has reduced from 5.2 years in January 2010 to 4.9 years in January 2020 (Bureau of labor statistics, 2020). This shows that the employees have become more ambitious, favor career growth and constantly look for new opportunities and fresh climate of work, where job hopping has become the new norm. In the period of a lot of changes and combined with recovering economy, employees are no longer afraid to switch jobs. The pandemic also had further destigmatize job-hopping and with increased financial stress the exuberance to find new job has increased (Iacurci, 2021). Hence, engaging employees has become quite a challenge for organizations whole over the world and thus, as reported in this study, it only partially mediates the relationship of working environment, training and development, rewards and recognition with organizational performance. The first hypothesis of the research is accepted as there is a significant partial mediating effect of employee engagement on working environment, training and development and rewards and recognition and organizational performance.

Theoretical and Managerial Implications

This study explores the impact of working environment, training and development and rewards and recognition on organizational performance in Putra pharmaceutical Sdn. Bhd. Adding in employee engagement as mediator has differentiated this study from the previous studies that has been conducted in the context of Malaysia. The findings of this study had proven the positive significance impact of training and development and working environment towards employee engagement in Putra pharmaceutical Sdn. Bhd. Safe and conducive working environment is vital to motivate employee engagement and improve the productivity and organizational performance. Work life balance is also important, hence, the work load and duties has to be distributed equally among the workers in the industry. The organization should focus on providing opportunity and support employee career growth and advancement. In improving the employee engagement, the organization has to enhance their ability to attracting and retaining strategy of essential employees.

Theoretically, this finding have contributed further understanding on impacts of these constructs towards employee engagement and organizational performance. In terms of managerial implications, the study has enable the human resources professionals and the management of Putra pharmaceutical to have a better understanding on the constructs in improving employee engagement and organizational performance. Moreover, this study also discovers that employee engagement is a strong predictor of organizational performance, but it is merely having mild mediation effect towards the constructs of employee engagement and organizational performance. The results of the study reinforces earlier findings by other researchers on employee engagement and organizational performance. As there is only partial and mild mediation effect of employee engagement towards organizational performance, future researchers may not need to include this measurement into the studies.

Limitations and Future Research

In this study, there are few limitations, whereby caution should be taken in interpretation and generalisation of the findings. Due to time constraint for the research, the study focused in one of pharmaceutical company, Putra Pharmaceutical Sdn. Bhd. The 151 respondents do not represent the actual population of employees in pharmaceutical industry in Malaysia. As many employees were still practising work from home, the respondent profile were mostly consist of employees working on-site. Further, more researchers are necessary to confirm the casual relationship between these constructs by using broader sample. The study also can be conducted in different pharmaceutical company and in different geographical region to widen the generalisability of the research findings. The conceptual framework can also be replicated outside Malaysia in determining the impact of employee engagement constructs on organizational performance, in domestic and international context.

In addition, this research has been conducted by including only three constructs of employee engagement, working environment, training and development and rewards and recognition. There are other constructs of employee engagement such as leadership, employment stability, organizational policies, digital capabilities that can be studied as extension to current research. The researchers can also study the impact of the employee engagement constructs on employee performance and organizational excellence, which was not covered in this study. Moreover, the same framework can be applied in studying the impact of employee engagement and organizational performance in different industry. Lastly, the study was conducted with respect to the timeframe of COVID-19, when the pharmaceutical industry's

business was booming due to high demands. Future research can be done in a different timeframe in understanding impact of employee engagement in the industry.

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