

# The Effects of Environmental Management and HRM Practices on the Operational Performance in Thai Pharmaceutical Industry

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## ABSTRACT

The effective human resources management practices which may stimulate the performance of new organizational objectives in relation to effective environmental or ecological performance. By considering human resources management practices with operation is emerged with green human resource management to pursue the speculation of merging exceptional arrangement between HRM practices and natural issues drives more firms to embrace ecological administration. Some of the aspects from ecological perspective helps the organization to be more environmentally friendly. Therefore, this study is conducted to investigate the perspective of human resource practices (Recruiting and Selection, Rewards and Benefits) along with environmental practices (Environmental Management System, Environmental training and Environmental Supplied Development) towards operational performance of the pharmaceutical industry. From the sample size of 1355, questionnaire emailed to the respondent by stratified with the job title. The total of 298 returned, and 48 were incomplete. Finally, we obtained 250 samples which

were useful for most analyses. Findings showed that, in the perspective of human resources, benefits, recruitments and rewards significantly influencing the operational performances of the organization. For environmental practices, Environment management system, environmental training programs have significant influence the operational performance of the organization. However, environmental supplied development does not influence the operational performance.

**Keywords:** Human Resource Management Practices, Environmental Management, Thailand

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## INTRODUCTION

The heightening of ecological concerns has been driving organizations to embrace natural management practices at an expanding rate. One of the debates supporting the approval of these environmental management practices is that they provide advantages to an organization, heighten the green and competitive benefits in the market (Garza-Reyes, Betsis, Kumar, & Radwan Al-Shboul, 2018; Kerdpitak & Jermisittiparsert, 2020). By implementing

those advantages through environmental management practices, an organization can improve the operational performance in the firm includes a decrease in production costs. Gray, Siemsen, and Vasudeva (2015) argue that environmental management practices cooperate with the organization in other parts of the organization. There are two management areas that have gained attention from the academic professional and business professionals to gain success in effective environmental management.



Figure 1. Environment Management Structure

Source : (Schaltegger & Wagner, 2017)

As shown in Figure 1, environment management divided four major dimensions which are environment social contribution, environment protection, environment business and environmental risk management. This four-dimension together improve organizational performance. The first area is the operation management or manufacturing management by which organization generate the assets that may have significant environmental effects. Another one is the effective human resources management practices which may stimulate the performance of new organizational objectives in relation to effective environmental or ecological performance.

Once a company shows the greater lean manufacturing practices, the capacity of the operations or manufacturing area tends to provide greater support to environmental management. The first area or management practices have critical ecological impacts because it produces assets. The consequent domain is HR, which may affect the display of new progressive goals, for instance, those related to biological execution. The limit of the exercises/creating area to enable the characteristic organization to will all in all be progressively noticeable when the association gets Lean Manufacturing practices (Akram, Siddiqui, Nawaz, Ghauri, & Cheema, 2011).

TABLE 1. Thailand Pharma Market Snapshot

Projected Year	Market Size (USD billions)
2018	4.6
2021	6.3
2026	8.4

Source: (Banfield, Kay, & Royles, 2018)

Table 1 shows the Pharma Market Snapshot from 2018 to 2026 in Thailand. It shows that in 2018 the market size was 4.6 USD billion, in 2021, the market size will be 6.3 USD billion and in 2026 projected market size will 8.4 USD billion in Thailand. This research demonstrates that the pharma market is waiting for a great opportunity in the near future for Thailand. In manufacturing operations, waste reduction contributes to environmental management through the greater efficiency in the use of products and the implementation of proper cleaning practices which develop the production organizational environment (Patwary & Rashid, 2016). By increasing the environmental management practices, organization generate competitive advantages. Then again, the proper execution of human resource management practices is an essential prerequisite to adopting environmental management practices. These scholars urge to align the certain human resource management must include performance evaluation, selection, recruiting, and training to gain the environmental management objectives. Aligning the human resources management practices with the operation is called Green Human Resource Management, which pursues the speculation that an increasingly exceptional arrangement between HR and natural issues drives more firms to embrace ecological administration. This study aimed to examine the role of human resource practices (Recruiting and Selection, Rewards and Benefits) along with environmental practices (Environmental Management System, Environmental training and Environmental Supplied Development) towards operational performance of the pharmaceutical industry.

## LITERATURE REVIEW

### Environmental Management

The implementation of environmental management practices enhances input productivity, such as natural resources and raw materials (Mehralian, Nazari, Nooriparto, & Rasekh, 2017). Further, the company get benefit from the economic perspective as proper environmental management practices reduce environmental fines. This practice increases the probability of exporting the products to native countries which strictly follow the environmental legislation. It accesses to a market of naturally mindful shoppers by investigating ecological advertising methodologies. Valorization of offers, as proposed by the Dow Jones Sustainability Group Index (Sertkaya, Wong, Jessup, & Beleche, 2016). Advancement of items and procedures result in an expansion in an organization's ecological concern. Although the inclusion of human resource management is generally defined the basic to the success of proactive ecological management, little is known about the dynamics of this relationship (Tavana, Khalili-Damghani, & Rahmatian, 2015).

### Environmental Management System

To attain the sustainable development goals and objectives, the ISO 14001 standard become fundamental. This ISO 14001 standard provides the cost-saving advantages to improved efficiencies and energy efficiencies whilst supports the organization to shape legitimacy with foreign stakeholders. By increasing the environmental image with sustainable environmental goals, the company expand its products to the global market. It enables a company to exhibit its natural stewardship to observe overall clients, hence drawing more extensive enthusiasm towards their products (Valmohammadi & Roshanzamir, 2015). From a social point of view, constant natural improvement can straightforwardly fill in as a pathway to building the personal satisfaction by reducing the capability of local ecological perils, for example, nourishment uncertainty, heatwaves, floods, dry seasons and medical issues (Hunter, Saunders, & Constance, 2016).

In recent years, although the ISO 14001 standard has added the increased devotion worldwide (St Pierre, Hofinger, & Simon, 2016); till a lopsided selection of the standard found in the context such as developed and developing countries (Ogunyomi & Bruning, 2016). For example, European nations have encountered a noteworthy increment in adopting the above standard. More specifically, in the year of 2000, the certified company were 7,253, and that increased to 119,754 in 2015. In addition to European countries, Asia also shows a significant improvement in adopting the ISO14001 standard. For example, between 2000 to 2015, the certified company increased to 173,324 in 2015 from 5,234 in 2000 that makes the region new largest adopter of ISO 14001. However, the growth in Asian countries is mainly dominated by the three most developed nations, including South Korea, China, and Japan. As cited by Neumayer and Perkins (2004) contend that a lopsided appropriation of ISO 14001 models will bring about the rejection of uncertified organizations, which could serve to underestimate organizations from nations where ISO 14001 isn't ordinarily received. This is particularly the situation where ensured organizations require their providers to be affirmed with a specific environmental accreditation standard. The environmental management systems standard ISO 14000 may not be enough but adopting 280,000 organizations in over 160 countries by December 2012 since its introduction the standard launched in 1997.

Environmental management, such as the adoption of ISO 14000 and other environmental practices has a significant role in improving firm performance. Firstly, the previous scholars argued and proved that once the organization properly implement the environmental practices mostly draw an enhancement of firm environmental performance (Knies, Boselie, Gould-Williams, & Vandenabeele, 2015). However, the advantages of uses the efficient

environmental management systems are not only lead to environmental performance but also lead to the perceived future financial performance of the organization (Namdej, Wattanapongphasuk, & Jermisittiparsert, 2019; Chetthamrongchai & Jermisittiparsert, 2020). For example, an investigation of the Spanish hotel industry by Hafeez and Akbar (2015) confirmed that the proper adoption of environmental management practices has significant positive impacts on firm financial performance. The substantial investigation of 45 organizations, another study by Bogner (2018) showed that effective environmental management practices organizations have greater firm performance includes innovation, higher return on investment, and an increase in sales growth. A further study conducted on the relationship between a firm's market and image performance. It is found that organization with high capabilities in implementing the environmental actions having the focus on reducing pollution and energy that develops their environmental collaborations both with business firms and with non-business organizations which later affects the organization's market performance (Banfield et al., 2018). In addition to that the abilities to execute environmental activities with attention on raw materials that lead to further collaboration with non-business organizations, in turn, affects the influence of a firm's image performance.

#### *Environmental Training*

By implementing environmental training, employees reduce the negative environmental effects and lessen the effects on the natural environment. To explains the resource-based view and the natural environment, several studies conducted to explain environmental management from the resources and capabilities perspective (Patwary, Roy, Hoque, & Khandakar, 2019). Although many definitions found in environmental literature, one of the most popular and accepted definitions provided by Ahmadi et al. (2017) stated that environmental management capabilities (EMCs) refer to the abilities and skills of an organization in relation to environment by which firms expand their performance by reducing environment-related problems. These capacities can be recognized as internally oriented and externally oriented environmental training. In particular, the training is to develop the products that are environmentally friendly and maintain the process to endure the cleaner production and manufacturing processes while mitigating the environmental issues into daily business by the implementation through an environmental management system. The latter training incorporates the supply chain management that involves supplying the products between organizations and suppliers through environmental management practices, maintain, develop, and sustainable relationship with external stakeholders. Despite the importance of environmental performance and environmental reputation in improving the firm financial performance, little known the effects of specific environmental management, both internal and external oriented matter on organizational performance. In relation to externally oriented environmental management practices, a model has been tested on the relationship between employee training about environmental management and firm performance

(Aagaard, 2017). Their study confirms that training is advantageous for the firms' overall environmental performance and reputation.

#### *Environmental Supplier Development*

To increase the suppliers' capabilities, the organizations require long-term cooperative development effort between the buying firms and their suppliers. To improve the relationship, both firms and suppliers can use each other to develop proficiency or solve issues by implementing their supply chain management system (Hafeez & Akbar, 2015). The previous argues that many suppliers across the world, including the Asian, European, and Latin American countries neither have the environmental consciousness and managerial or technological abilities (Björkman & Welch, 2015). Subsequently, the organization in developed countries face serious issues in relation to the environmental damage and work settings by their suppliers from the developing and underdeveloped countries (Flynn, Mathis, Jackson, & Valentine, 2015). Environmental Supplier Development (ESD) refers to incorporates all kind of activities by which the buying firm assist (Gambi, Boer, Gerolamo, Jørgensen, & Carpinetti, 2015) their suppliers to lessen the negative impact on the environment. The development of green supplier is imperative in the distribution of green supply chain among organizations (Helmreich & Merritt, 2017). The previous studies showed that collaboration with green purchasing activities and customers has a significant positive effect on the green performance of organizations. Incentives and direct involvement, competitive pressure, and evaluation/certification system are considered as supplier development (Jaberidoost et al., 2015). Competitive pressure refers to involvement in using the different suppliers to give an environment where suppliers feel obliged to operate proficiently and successfully. Standard assessment systems and feedback exercises inspire suppliers to become more progressively productive. Direct involvement can be seen as the capital and equipment investments that help suppliers in operation, help supplier in acquisition either partially or completely and help in investment in human resources and organizational resources to provides the knowledge in successful transfer activities (Kanki, 2019).

To improve their environmental performance, numerous organizations cooperate with their suppliers that they practice environmental management. For example, a partnership program between Xerox keeps and its suppliers increase the amount of reused equipment (Lee, Lee, & Wu, 2010). Similarly, Castrol also cooperates with their customers by making a joint program that resulted in lower lubricant consumption, reduces cost, and reduce the environmental impacts. Another multinational chemical organization, BASF starts a join campaigning with the United Nations Global Compact and the United Nations Environment Program in order to enhance the environmental performance of SME suppliers all over the worlds. To reduce the environmental impacts, BASF and its suppliers assess their environmental performance by measuring the energy consumption, the number of carbon emissions, and other material consumption. By doing this, BASF gives specialized help to the suppliers, such as technical support (Schaltegger & Wagner, 2017).

Similarly, commercial in the USA called Custom Print cooperates their chemical suppliers to reduce refusal chemical.

## Human Resource Management

### *Recruiting and Selection*

In general, staffing is seen as their most important, challenging, and critical human resources issues for any firms (Vaiman & Brewster, 2015). Organizations with limited financial resources, the key resources would be the human resource to compete in the market. In this regard, employees with unique skills could be the single incumbent for the organization to survive and compete with competitors (Lee et al., 2010). Any mistakes in selection unique skilled employed are magnified under any circumstance. The failing in staffing or success in the staffing even in with position may heighten the firms' performance or threaten its future progress extensively. Eventually, HR appropriateness in employee staffing might be the most basic determinant of whether firms get an incentive from their HR speculations (Babel, Ta, & Liyanage, 2020). Staff recruitment and selection considered the underlying instruments for human resources management to embrace environmental management practices (Briscoe, Tarique, & Schuler, 2012). A number of studies confirmed that human resources management practices should have alignment with the practices includes recruitment, and selection, training and performance evaluation in relation to environmental management objectives. Thus, Green Human Resource Management develops between human resources management practices and environmental management practices. To examine more on the relationship, a more intense link between human resources and environmental problems are examined that leads organizations to adopt environmental management practice (González, 2016).

### *Rewards for Employees*

To motivate productivity and performance, reward is one of the payment systems for the employees' practice in the organization. Strategic compensation pay looks to exploit the representative and strengthening esteem innate in pay by underlining the instrumentality of meeting great characterized criteria for learning rewards. A specific prize procedure, in this manner, indicates a standard for deciding privilege to a reward. The objective is to inspire frequently appears to exist in conflict with the fairness objective. In contrary, pay equity refers to degrees of parity which is another way of motivating all employees regardless of any discrimination. However, with such multiple and sometimes competing objectives, selecting appropriate reward strategies is complicated, which may create some problems or requires some compromise (Kooij et al., 2013).

According to Logan and Skinner (1998), reinforcement theory posits that individuals will, in general, do whatever gets them remunerated. To be more specific, behaviours are changeable according to the conditions, by providing the reward to the behaviours of the employees can be shaped for the purpose of the organization. In an uncertain condition, the desired outcome may not be expected, but attaching the reward will reinforce whatever

behaviours lead to those outcomes. At the point when the practices prompting attractive results are unsure, rewards appended to the results will strengthen whatever practices lead to those results. In addition, the expectancy theory posits that tying meaningful rewards to task performance enhance the motivation of employees by providing personal goals. What's more, recognizing a yield measure is commensurate to defining an objective (Modgil & Sharma, 2016). Objectives influence execution by focusing the attention, preparing effort, and motivating individuals to create objective achievement systems. In this manner, this study expects reward strategies yield to support higher operational performance.

### *Benefits for the Employees*

The benefit is one of the influential human resources practices employed by the organization. Benefits are shared equally to all employees through the organization policy, but it is not the part of direct salary. It is one of the critical component of organizational strategy by which human resources manager use to gain competitive advantages (Thungngern, Wijitkosum, Sriburi, & Sukhsri, 2015). This is well explained by the resource-based view theory that benefits to employees provide greater motivation at the workplace to gain organizational goals which in turn provide financial performance. For instance, Zeng et al. (2011) identified through the meta-analysis that efficient HRM practices such as incentive, performance-based, and other compensation considered the most commonly observed aspects to increase the firm performance. Despite the importance of incentive pay on organizational performance, such effects are not all-inclusive. Because of the facts that this completely depends on the self-interested and risk-aversion behaviour of the individual. For example, Bloom and Milkovich (1998) asserted that incentive pay sometimes coincidentally imposes a high risk to employees as it creates the variability of pay. By presenting representatives to high vulnerability of business and salary stream, dynamic and unusual situations may increase negative elucidations of motivation pay and hazard avoidance conduct among workers, and along these lines, bring about troublesome worker results.

Furthermore, the agency theory identifies the differences between the goals and risk perceptions of employees and employers, resulting in the self-centred behaviour, which in turn maximize the own benefits and objectives. Firms are eager to utilize the motivation pay when the expectation is higher from the employees compare to the resources they invest in (Mutinda & MORONGE, 2017). Eminently, firms have a solid inclination to contract and hold more equipped labourers than their rivals. Efficiency wage theory signifies that incentive pay assists the organization with obtaining and continue prevalent human resources in the labour market. Similar to efficiency wage theory, attraction-selection-attribution theory suggests that performance-contingent incentive pay systems may rise in turnover intention or may lead to hiring more competent workers due to series of managerial actions regarding to productive employees which at improves the general capacity and performance of the organization. Every individual work in organization mainly to obtain financial gain by providing the services



they hold. Hence, compensation is one of the most HR practices, which is a straightforward reward for the employees by employers that fulfil the fundamental needs of every individual. By looking at the facts, both employees and employers are eager to endeavours to maximize their self-interests. In this regard, employees are enthusiastic about offering time and effort to serve their companies in return get a certain amount of reward for their financial gain. Similarly, employers are also practising the equilibrium practices to offer the benefit for the employees. However, employers normally provide lower incentives to employees compare to efforts employees provide to the organization.

Taking into account that every individual of a company contributes to a different degree, and workers feel fulfilled and agreeable when the organization gives fair remuneration corresponding to their commitment, rather than equivalent compensation to everybody paying little respect to the time, exertion, and commitment of every part. To achieve motivating scheme effectively, the individual may direct extra-job conduct and apply impressive effort to improve their knowledge, skills and abilities which, thus upgrade the proficient and powerful activity of different hierarchical capacities and therefore improve firm execution (Mu'taman Jarrar & Don, 2016).

#### Theoretical Framework and Hypotheses

While incorporating environmental management practices in a firm deemed crucial strategy in the current phenomenon of climate-changing issue, however, there are scarce of studies which focus on integrating human resources, environmental management, and operational performance. Nevertheless, some scholars investigate these relationships partially. For instance, the effects of environmental management on operational performance, the association between environmental management and human resources, the association between lean

manufacturing and environmental management (Neumayer & Perkins, 2004). Therefore, to fill the above gaps, this study takes the opportunity to investigate the complete relationship between them in the context of the pharmaceutical industry in Thailand. Preferably, this study will verify their relationship firstly in the pharmaceutical sector. The growing interested has been shown in the field of environmental management worldwide, while the pharmaceutical industry is one of the potential sectors for Thailand that contributes to a huge amount of money in GDP. Hence, the main goal of this study to investigates the impacts of human resource management and environmental management and on the operational performance in the context of Thai pharmaceutical companies. The following hypotheses are developed as reviewed by the literature above.

*Hypothesis 1: environmental management system positively influences the performance in Thai pharmaceutical companies.*

*Hypothesis 2: Environmental supplier development by pharmaceutical firms positively affects firm performance in Thai pharmaceutical companies.*

*Hypothesis 3: Environmental training for all employees undertaken by pharmaceutical firms is positively associated with firm performance in Thai pharmaceutical companies.*

*Hypothesis 4: Careful recruiting and selection of staffs in Thai pharmaceutical companies positively influence their firm's performance.*

*Hypothesis 5: Rewards for employees in pharmaceutical companies in Thailand significantly affects their firm performance.*

*Hypothesis 6: Benefits for employees in pharmaceutical companies in Thailand has a greater influence on their firm performance.*

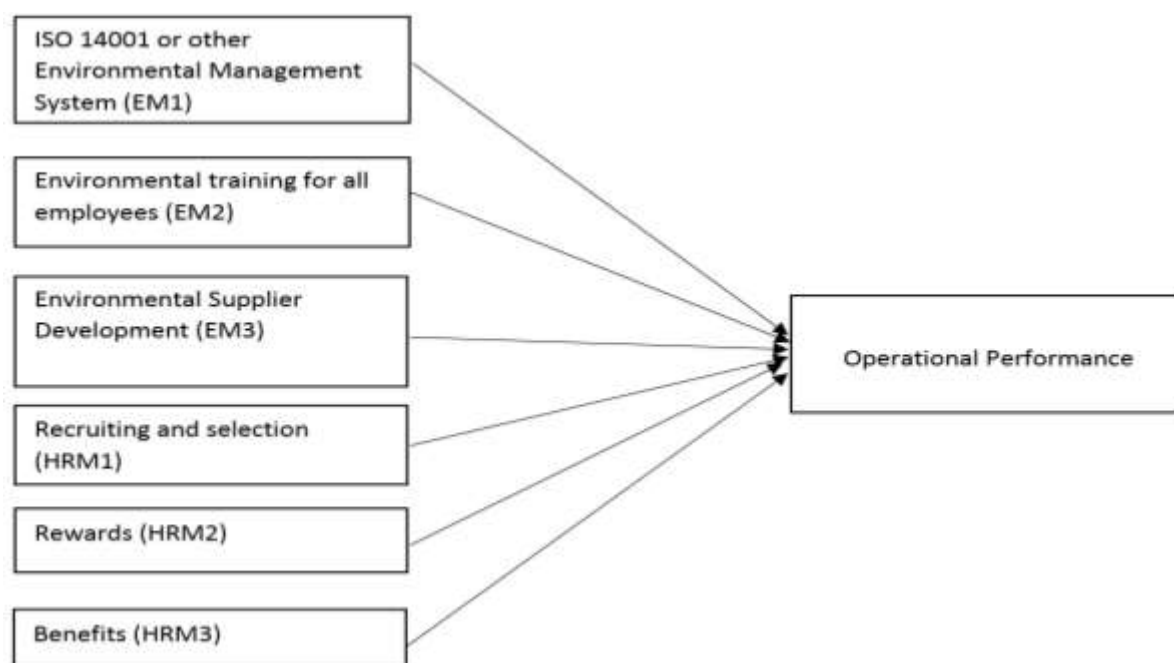


Figure 2: Conceptual Model of the Study

## METHODOLOGY

### *Sampling Procedure and Data Collection*

This study selects the sample from the government-approved pharmaceutical companies in Thailand. Human resource management professionals of the respective companies were the key respondents. Managers or higher-level employees working in the pharmaceutical companies were intercepted for the study. Managers and higher-level personnel are selected for this study due to their sufficient knowledge about both the environmental management programs and reward systems in their organizations, and in-depth knowledge about the organization's overall performance. From the sample size of 1355, questionnaire emailed to the respondent by stratified with the job title. The total of 298 returned, and 48 were incomplete. Finally, we obtained 250 samples which were useful for most analyses.

### *Measures*

Two dimensions of human resources practices, including general practices and green practices were chosen as the independent variables while one-dimensional operational performance was used as the dependent variable for this study. The operational performance was measured using seven-item operational performance developed by Samson and Terzioviski (1999). The construct ISO 14001 and other

environmental management systems (EM1) was measured via five item-scale questionnaires adopted from the previous study of Neumayer and Perkins (2004). Likewise, environmental training for all employee (EM2) was assessed using four item-scale questionnaires adopted from the previous study by Berchicci, Dowell, and King (2012). Environmental supplier development (EM3) was measured five item-scale questionnaires adopted from Ehrigott, Reimann, Kaufmann, and Carter (2013). Recruiting and selection variable (HRM1) was measured via five item-scale constructs adopted from Messersmith and Guthrie (2010). Similarly, the rewards (HRM2) variable was measured using the five item-scale adopted from Hollensbe and Guthrie (2000). Final construct HRM3 was measured using four item-scale adopted from the study of Coff and Kriscynski (2011). We also solicited ratings on measures of five-point Likert-scale about the firm's operational performance with four items adapted from Ravichandran, Lertwongsatien, and Lertwongsatien (2005).

## DATA ANALYSIS AND FINDINGS

Table 2 shows the demographic distribution of the respondents for gender, marital status, age, income, education level and working experience in the industry.

TABLE 2. Demographic Statistics of the Respondents

Gender		
Male	122	48.8
Female	128	51.2
Marital Status		
Single	101	40.4
Married	149	59.6
Age (Years)		
25 years and below	73	29.2
26-35 years old	68	27.2
36-45 years old	38	15.2
46-55 years old	47	18.8
56 years old and above	24	9.6
Income		
Below 10000 Bhat	18	7.2
10000 - 30000 Bhat	58	23.2
30001 - 50000 Bhat	94	37.6
Above 50000 Bhat	80	32.0
Education		
Diploma	7	2.8
Degree/Bachelor	98	39.2
Masters	98	39.2
PhD/Doctoral	47	18.8
Experience		
1-3 years	163	65.2
4-6 years	70	28.0
7-9 years	13	5.2
More than 9 years	4	1.6

For gender, 48.8% of the respondents are male and 51.2% are female. Majority of the respondents are married which is 59.6% and single are 40.4%. In terms of age group, highest age group consists of “25 years and below” which is 29.2% followed by “26 to 35 years” 28.8%, “46 to 55 years” is 18.8% “36 to 45 years” 15.2%, and 56 years and above is 9.6%. Majority of the respondents have the income of 30001 to 50000 Bhat which is 37.6% followed by above 50000 Bhat (32%), 10000 to 30000 Bhat (23.2%) and below 10000 Bhat (7.2%). For education level, majority of them bachelor and master’s degree holder which are 39.2% and 39.2% respectively, and PhD/ Doctoral degree holder (18.8%) and diploma holder is 2.8%. While looking into the job experience of the respondents, most of them have experiences of 1 to 3 years (65.2%), followed by 4 to 6 years is 28%, 7-9 years is 5.2% and more than 9 years is 1.6%.

#### Measurement Model of the Constructs

PLS-SEM used to assess the EM and HRM on firm’s operational performance in the pharmaceutical companies in Thailand. We report results using a level of significance at  $p < .10$ . While looking into the measurement of the study, the major considerations given to the convergent validity, discriminant validity, R square, effect size, and average variance extracted (AVE). The six independent variables which are recruiting and selection, rewards and benefits, environmental management system, environmental training and environmental supplied development have explained 52.1 percent variance on operational performance of Thai pharmaceutical industry. Cronbach’s Alpha values are considered to evaluate the internal consistency of the constructs. The minimum Cronbach alpha for operational performance is 0.874 which is more than the suggested value of 0.70. Cronbach’s Alpha values for remaining variables are considered as high and items are suitable to be in the constructs. Average variance extracted for variables are in accepted range as all are above 0.50.

TABLE 3. Measurement Model

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Benefits	0.814	0.853	0.876	0.638
Environ_Management	0.873	0.889	0.907	0.662
Environ_Supply	0.945	0.947	0.960	0.857
Environ_Training	0.922	0.922	0.942	0.766
Operational Performance	0.808	0.812	0.874	0.635
Recruitment	0.866	0.870	0.903	0.650
Rewards	0.864	0.868	0.902	0.648

Furthermore, for discriminant validity two most widely used method performed such as Fornell-Larcker criterion

(see table-4) and Heterotrait and Monotrait Ratio (see table-5)

TABLE 4. Fornell-Larcker Criterion

	Benefits	Environ_Management	Environ_Supply	Environ_Training	Operational Performance	Recruitment	Rewards
Benefits	0.799						
Environ_Management	0.235	0.814					
Environ_Supply	0.110	0.135	0.926				
Environ_Training	0.117	0.209	0.927	0.875			
Operational Performance	0.304	0.385	0.370	0.416	0.797		
Recruitment	0.157	0.326	0.143	0.184	0.462	0.806	
Rewards	0.251	0.339	0.282	0.313	0.647	0.492	0.805

In addition to that HTMT also shown for the confirmation of discriminant validity. There is no

correlation is more than the 0.85. So, this study confirms all the criterion for the measurement model.

TABLE 5. Heterotrait-Monotrait Ratio (HTMT)

	Benefits	Environ_Management	Environ_Supply	Environ_Training	Operational Performance	Recruitment	Rewards
Benefits							
Environ_Management	0.267						
Environ_Supply	0.115	0.143					

Environ_Training	0.127	0.223	0.994			
Operational Performance	0.361	0.448	0.421	0.479		
Recruitment	0.172	0.368	0.156	0.204	0.548	
Rewards	0.288	0.385	0.316	0.353	0.769	0.571

#### Structural Model of the Study

To find the effect of independent variables on dependent variable, the bootstrapping method performed using the Smart-PLS version 3.0.

TABLE 6. Direct Effects of the Study

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Benefits -> Operational Performance	0.119	0.123	0.040	2.980	0.003
Environ_Management -> Operational Performance	0.114	0.114	0.044	2.615	0.009
Environ_Supply -> Operational Performance	-0.009	-0.014	0.075	0.114	0.909
Environ_Training -> Operational Performance	0.221	0.227	0.084	2.625	0.009
Recruitment -> Operational Performance	0.151	0.154	0.049	3.070	0.002
Rewards -> Operational Performance	0.437	0.435	0.051	8.500	0.000

The table-6 represent the direct effect of social support, co-worker support, supervisor support, and organizational support on employee engagement.

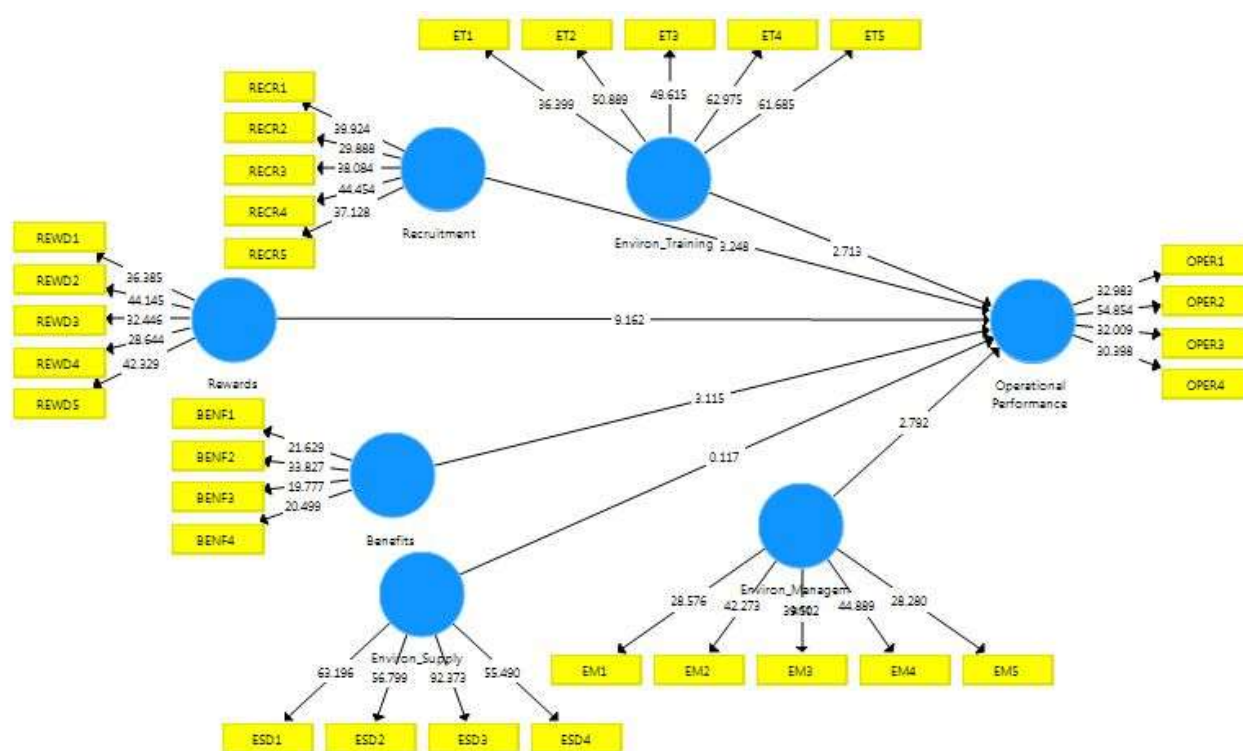


Figure 3: Structural Model

The main objective in this study was to investigate the effects of human resource management practice and environmental practices on operational performance in the pharmaceutical industry in Thailand. Findings showed that, in the perspective of human resources, benefits, recruitments and rewards significantly influencing the

operational performances of the organization. For environmental practices, Environment management system, environmental training programs have significant influence the operational performance of the organization. However, environmental supplied development does not influence the operational performance. The finding of the



study supported the hypothesis that Recruiting and Selection, Rewards and Benefits, Environmental Management System, Environmental training are important antecedents of operational performance in aligning with the environmentally friendly practice in the organization. This finding is consistent with previous studies found across the world.

## DISCUSSION AND CONCLUSIONS

The empirical findings suggest that reward system was the most influential factor in directing the operational performance ( $\beta=0.437$ ;  $t=8.50$ ) followed by the recruitment and selection ( $\beta=0.151$ ;  $t=3.07$ ). Benefits were the third influential factors in predicting the operational performance, while environmental training and environmental management have quite similar effects on performance. However, environmental supply management does have effects on firm performance. Generally, both environmental and human resources management practices together have influential effects on firm performance. By considering the accumulated importance of human resource and ecological practices, this study is conducted to investigate the perspective of human resource practices (Recruiting and Selection, Rewards and Benefits) along with environmental practices (Environmental Management System, Environmental training and Environmental Supplied Development) towards operational performance of the pharmaceutical industry. Results of the study revealed that, among the human resources practices, benefits, recruitments and rewards have significant impact on the operational performances. Environmental practices also inclined to have shown the importance towards operational performance except environmental supplied development.

### Policy Implications

Perfect execution of human resource management practices is essential requirement to undertake environmental administration practices. Organization generates remarkable advantages through environmental management practices along with appropriate human resource management practices. In the context of pharmaceutical industry, practicing environmentally friendly activities does make a huge difference in saving the natural resources and energy consumption.

### Limitations and Future Study Recommendation

The present study is a cross-sectional in nature, thus data were collected at one point in time. It is sometime difficult to determine the direction of causality. Thus, the causal relationships among the independent and dependent variables cannot be concluded. Therefore, it is preferable to have sufficient time lapse between the time of data collection for independent variables and dependent variable. However, this could be achieved through the longitudinal research.

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