

A Study on Relationships between Training Elements and Employee Performance towards Skilled Workers

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ABSTRACT

An employee is one of the most essential resources in every organization. For organization to be able to meet its goal, the effectiveness and efficiency of the task force is unquestionably important. The employees who made up this task force must be well-trained and able to deliver and perform the tasks provided to them. Given the challenging nature of the oil, gas and petroleum industry, with improving technology, the level of training and skills of the employees is critical to the performance of the company. It requires continuous improvement on employee's level of skills. In a study conducted, new hires in the oil and gas industry facing difficult time due to unfamiliar tools, terms, work practices or expectations in order to perform the job. Training and development are indispensable strategic tool for enhancing employee's performance that will provide the company's competitive edge. In a study conducted by Barlow (2006), firms need an appropriately skilled workforce for maximum effectiveness, and many increasingly use in-house development and training programs to meet this need. The study becomes necessary because many service provider organizations in this oil and gas industry are striving to gain competitive edge and this can be achieved with increasing employees' competencies, capabilities and skills through adequate training designs.

Key Words: Training Elements, ADDIE Model, Employee Performance

1. INTRODUCTION

Thirty years ago, the Malaysian Parliament passed the Petroleum Development Act (1974) and laid down the groundwork for the development of oil and gas industry in the country. Since then the industry has developed to become one of our most important economic sectors. The oil, gas and energy (OGE) industry contributes approximately 20 per cent to Malaysia's GDP and has been identified as a sector that will feature prominently in its future (Malaysian Investment Development Authority (MIDA), 2015.) It is also a sector which has taken advantage of the most demanding, challenging and exciting engineering and technological advances and therefore should be of great interest to engineers especially for local company. Hence, local companies have numerous opportunities to contribute to the various facets of the industry, from front-end engineering design of oil production facilities to the design and construction of chemical plants. In recent years, Malaysia has also created a vibrant market for merger-and-acquisition activities to acquire key resources such as technology, capabilities, physical space as well as key personnel. As a result, Malaysian services companies today offer competitive rates and skilled manpower to support the growth of the upstream and downstream sectors while remaining competitive compared to other countries in the region. Malaysian oil and gas companies are focused on key strategic segments such as marine, drilling, engineering, fabrication, offshore installation and operations and maintenance (O&M). According to Hays Oil & Gas Global Salary Guide (2016), 79% employers plans to increase in hiring the skilled worker throughout the year ahead to complement the job scope. In addition, based on data from 24,000 respondents, skills shortages are significant challenge for the 42 per cent of oil and gas employers in Malaysia. Thus, the strict hiring plans decrease the employment of skills-short

market. As a result, company are pressured to increase salaries to attract high potential skilled-candidates. But the main issue is the lack of skilled workers available to employers.

1.1. Problem Statement

The purpose of training is to provide skilled workers with job-specific knowledge area. The knowledge and skills presented are related directly to the job requirement. Skilled workers are scarce resources, the company either need to give training or spend more on salaries in order to attract skilled workers. Some companies also need to continuously send their workers to acquire and maintain skills that fit with the task to receives clients' trust. Skilled workers are the most important and valuable asset because the main portfolio is to provide experienced, qualified and competent manpower and services in their industry of business. Thus, skilled workers are the main pillars in providing continuous outstanding company image to clients. The high standard requirements on training before the starting of work in the fields show that the company provides a crucial indicator in developing skills set and growing talented competent man-power. As such, commencing this study is necessary to ascertain the extent to which training programs implement have effectively been able to increase employee performance It is hoped, the findings from this study would assist the management to formulate rightful strategies to significantly contribute towards training elements, as well as employee's performance in meeting their KPIs.

1.2. Research Objective / Research Question

The research objective of the study is to determine the relationships between training elements and employee performance towards skill workers. The research question addressed in this study is there any relationship between training elements and employee performance towards skill workers.

1.3. Scope of Study

This study will cover about the training elements that consist of the five main dimensions which are training need analysis, training design, training development, training delivery and training evaluation. This will venture into their effect on the company performance as measured by their KPIs. Under this study, group of skilled workers will be assessed. The study will be applicable for those skilled workers that had undergo training on the same entry level at the company. This study is focused in an oil and gas company which is located in Masjid Tanah, Melaka. The respondents of the study are the skilled workers who had gone three (3) months training session and ready to deliver their services to customers.

2. LITERATURE REVIEW

Training Elements

The training elements in this study will discuss on determinants by using the ADDIE model. Allen (2016) research state that this model is widely used by researchers as an adaptation of the systems process to problems of workplace training and instruction. The ADDIE model stands for analyse, design, development, implement and evaluation are the process of alternative solution to instructional problem which will be cost-efficient depending on the instructional need and environmental constraints.

Employee Performance

Afshan (2012) defined performance as the achievement of specific task measured against predetermined or identified standards or accuracy, completeness, cost and specification. Employee performance can be wholly defined as the accomplishment or output in a productive system such as the company. This kind of output in this study is measured by looking into the management view, the organization structure, the performance appraisal system and also the job design.

Training Need Analysis

Boydell (1976) stated that, a training need exists when the application of systematic training will serve to overcome a particular weakness. Kraiger (2010) mentions about various measures available to help with

the analysis on observed the skills training that linked to the assessment instrument which are able to analyse and respond.

Training Design

Research by Sanjeevkumar & Yanan (2012) mentioned that the types of training and alternatives to training base on the firm needs are also relevant to the employees' job performance. Finally, the content of the training must emphasize both theoretical and practical aspects, as well as the acquisition of knowledge and skills (Gauld and Miller, 2004).

Training Development

Robotham (2004) mentioned about engagement of employees with training activities can be increased by motivating them and making them realize how training can help them improve their performance and organizational productivity. Nikandrou (2009) also suggested that the goals and the extent of training, the training methods and means, as well as the training place and equipment, are important factors that related to training program planning.

Training Delivery

Goldstein and Ford (2002) mentioned of today's instructional methods used by designers, developers, and instructors or trainers that the instructor is the expert transferring information and knowledge to the learner. Thus, there is significant evidence that these methods are effective at fostering learning. Moreover, Clark (2011), Tan and Lim (2012) and Silberman and Auerbach (2011) discuss on the delivery method of any training program implies in which way the training program is exercised.

Training Evaluation

According to Holton (1996) and Kirkpatrick (1998) evaluation focuses on determining the extent to which training has responded to the needs of the organisation and its translation in terms of impact and profitability. According to Plant & Ryan (1992), the new system of training effectiveness evaluation forms the basis of individual analysis, and also allows group deficiencies to be explored over time.

2.1. Theoretical Framework and Hypotheses

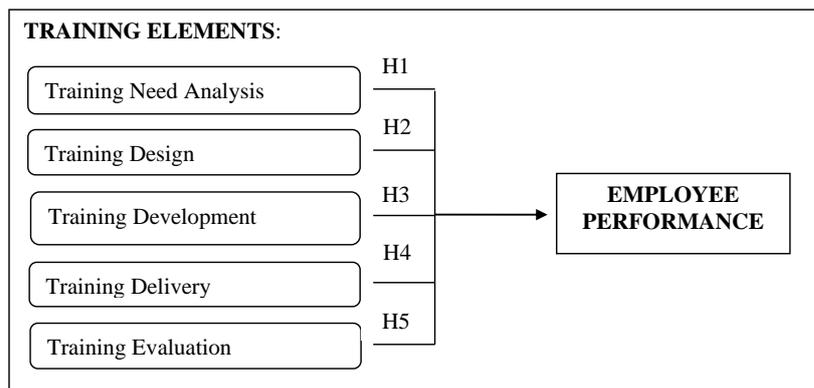


Figure 2.1: Theoretical Framework

By testing the hypothesis and conforming the conjectured relationship, it is expected that solution can be found to correct the problem encountered. There are five hypotheses were built from the theoretical framework which are:

- H1-There is a significant relationship between training need analysis and employee's performance.
- H2-There is a significant relationship between training design and employee's performance.
- H3-There is a significant relationship between training development and employee's performance.
- H4-There is a significant relationship between training delivery and employee's performance.
- H5-There is a significant relationship between training evaluation and employee's performance.

3. METHODOLOGY

This study covers on the areas of the research design whereas categorized under the cause and effect study as the main purpose is to determine the magnitude of effect that training elements have on employee performance. The data collection data have been gathered from two main sources which are primary data from survey questionnaires and secondary data from external sources such as books as well as articles and journals. In data measurement and scaling for questionnaire design, the items have been measured using a five points Likert Scale from 1 to 5. Data preparation and data analysis is retrieved using SPSS to carry out the Reliability Analysis, Correlation Analysis and Multiple Regression Analysis so that the association and relationship between the independent variables of training elements and dependent variable of employee performance can be figured out.

3.1. Questionnaires Design

This study involved two main variables, training effectiveness and employee performance. The questionnaires are designed based on the five dimensions of independent variables to highlight the area of the study to be researched on. The dimensions based on the ADDIE Model which stated five dimensions that influence the training effectiveness which are the training need analysis, training design, training development, training delivery and training evaluation. The items in the questionnaires have been amended in term of its wording and suitability with the study.

4. RESULTS AND FINDINGS

4.1. Reliability Analysis

The value of Cronbach’s Alpha for dependant variable (Employee Performance) is 0.922 that shows the level of relative internal consistency and reliability excellent and thus acceptable for this study. As a summary, the Cronbach’ Alphas for all independent variables are considered to be very good and acceptable with training need analysis (0.898), training design (0.828), training development (0.893), training delivery (0.824) and training evaluation (0.884).

4.2. Correlation Analysis

	Training Need Analysis	Training Design	Training Development	Training Delivery	Training Evaluation
Employee Performance	.635*** .000	.477*** .000	.445*** .000	.407*** .000	.330*** .000

Figure 4.1: Correlation Analysis

There is a significant positive association between training need analysis($r=0.635+++$), training design ($r=0.477+++$), training development ($r=0.445+++$), training delivery ($r=0.407+++$), training evaluation ($r=0.330+++$) and employee performance. The correlation coefficient value ($p=0.000$) indicates a moderate association for training need analysis and weak association for the others variables. Therefore, all hypotheses H1-H5 is answered to have significant relationship.

4.3. Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.718 ^a	.515	.492	.37034

a. Predictors: (Constant), Mean Training Evaluation, Mean Training Development, Mean Training Delivery, Mean Training Need Analysis, Mean Training Design

Figure 4.2: Multiple Regression Analysis: Model Summary

Based on the above model summary, the R square value is 0.515, which indicates 51.5% of the variability of dependent variable (employee performance) can be explained by the five independent variables used in the model (training need analysis, training design, training development, training delivery and training evaluation). The remaining of 48.5% of the dependent variable (employee performance) is explained by other factors that have not been considered in this study.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.571	5	3.114	22.707	.000 ^b
	Residual	14.675	107	.137		
	Total	30.246	112			

a. Dependent Variable: Mean Employee Performance

b. Predictors: (Constant), Mean Training Evaluation, Mean Training Development, Mean Training Delivery, Mean Training Need Analysis, Mean Training Design

Figure 4.3: Multiple Regression Analysis: ANOVA

The table shows that the independent variables statistically significantly in predicting the dependent variable, $F(5, 107) = 22.707, p < .00$ which also means that the regression model shows a good fit of the data. The significant F-statistics of the model shows that at least one of the independent variables (Training Need Analysis, Training Design, Training Development, Training Delivery and Training Evaluation) is significant in explaining the variation of dependent variable (Employee Performance). Training need analysis is the highest predictor based on standardized coefficient from the multiple regression analysis ($\beta = 0.631$), followed by training evaluation ($\beta = - 0.270$), training design ($\beta = 0.268$) and training delivery ($\beta = 0.224$). Training development ($\beta = - 0.035$) is not a significant predictor of employee performance.

5. CONCLUSION

Research Objectives 1: to determine relationship between training elements and employee performance towards skill workers. The results show, each independent variable has significant positive relationship towards employee performance. Training need analysis is having the strongest relationship, while the rest are having a moderate but still significant relationship. It shows that any contribution and effort being put into any training elements would significantly increase employee performance. Therefore, research objectives 1 is achieved. Thus, effectiveness of training delivery method, delivery source of training, the content of the training program and the duration have significant impact on employee’s performance (Arthur (2003), Aguinis and Kraiger (2009)).

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