# Managing Training and Development Using e-Learning Methods in Malaysia IT Industry

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*Abstract*— **In this paper, the research will be more focusing on Human Resource (HR) department in managing training and development to improve the organization performance in Malaysia IT industry. Some problems occurred in training are development due to organization inefficiency, high cost and lack of time management which leads to low of engagement. In order to solve the issues, e-learning methods will be provided to improve the organization efficiency. On the other hand, the aim is proposed to solve the problems mentioned in the problem statement and objectives will be provided to accomplish the aim. The research methodology will use primary research using questionnaire and interview as the data collection method. Besides, some literature review will be provided as the secondary research to support the fundamental idea theoretically from previous the research, such as, books, journals and reports. As the result analysis, e-learning must provide the methods that can solve the issues in managing training and development. In conclusion, e-learning must provide high level of engagement and the platform to measure employees performance once it has been implemented.**

*Index Terms*— **e-learning, training and development, Human resources management, learning management system, PaaS, e-learning web, Gross Domestic Product.**

## 1. Introduction

Organization is the group of people who work together in achieving the same vision . The good organization structure will support the company business strategy, communication and provide the employees the procedures on how to operate efficiently through a logical progression. As a result, the company can reduce the duplication of work which leads to the inefficiency in task execution. Organization structure involve some entities and departments, such as, Finance and Accounting Research and Development, Sales Agent, Human Resource and so on. In this case, this research will be more concentrating on the Human Resource (HR) department.

HR department is dealing with all aspects of employment and organizing the employees to work efficiently to accomplish the goals of organization (O'Riordan, 2017). HR has several roles and responsibilities. For example, HR must ensure the company follows the rules and regulations in performing its tasks, record keeping, payroll administrator, manage the employees focusing on HR responsibility in managing training development of employees. Training and development is critical for the organization performance to enhance the employees skills, knowledge and self-growth.

To stay competitive domestically and globally, the company should manage the training and development to increase their employees performance. Training can be defined as a process of positive modifications with special ways which manage the people behavior from the vocational or functional aspect to enhance the employees efficiency and productivity (Khanfar, 2014). Besides, the employees also need a good training since it is important to keep the right people and enhance the company profits. However, training in physical class leads to some problems since it is costly, time consuming and employees disengagement. Resolving the issue, e-learning training is proposed to manage better learning for the company efficiency.

In this globalization era, the perspective of learning is shifting. The employees must become the subject during the learning process, while the instructor just act as the facilitator. In this case, the concept of e-learning provides the tool to support the conventional way of training and development programme. E-learning or distance learning can be defined as the learning system which help and facilitate the employees using computerized system utilization and network technology that is connected to the internet (Wahyuningsih & Makmur, 2017). E-learning able to bring benefits for the organization, such as, ease of use, accessibility, availability, time and cost efficiency, personalization and so on.

In this paper, the research will analyse in deep about e-learning engagement methods to improve the organization performance as applicative research. Some e-learning concepts, theories, characteristics, techniques and applications will be elaborated in the research background. Then, problem statement will be extracted from the analysis of the research background. Moreover, the aim is provided to solve the issues in training development using e-learning implementation. Research objectives will be given to achieve the overall aim being satisfied. After that, the scope and significance of research will be evaluated to specify the target research and

justify the importance of the study respectively. Under research methodology, the systematic processes will be elaborated on how to give the solutions and evaluations from the problems, so that the research can come into the conclusion. Mixed methods are explained in details as the chosen data collection method, which consist of quantitative and qualitative analysis. Lastly, the research schedule will be conducted to estimate the project timeline, such as the project activities and the project duration.

## 2.    Research Background

Recently many companies are having some issues and challenges to stay competitive in the industry (Cania, 2014). They must have a good organizational performance in order to survive in the global market place. Human Resource (HR) department has a critical role to manage and strategize their employees performance in improving the organizational performance. The solid relationship between strategic HR and organization will produce a strong competitive advantage in its practices.   According to Morneau Shell Ltd. (2017), there are top 5 priorities in the current HR management. One of the top priorities is conducting training and workshop for the employees to enhance the employees skills and knowledge in the specific area. Hence, HR should concentrate on performance management in delivering continuous and flexible process for the training and development.

### 2.1. Training and Development

In its practices, training and development has some importance and benefits for the organization. As mentioned earlier, training and development able to improve the employees skills and self-growth to perform their duties efficiently (Habiyaremye, et al., 2016). They tend to do in deep research and learn to not leave behind among the other employees. The reason is because the employees also want to have self-recognition and capability of doing a good job. Besides, training and development also will help the employees to maintain the service quality to satisfy their customers. According to employees training benefit circle, the advantages for the training is not only affecting the employees, but also management, clients and organization (Nestoroska & Petrovska, 2014). It implies that, training is also compulsory for the organization to serve the good quality service for the customers that can lead to the customers satisfaction and brand awareness.

However, conventional way of training and development has some issues and challenges during its implementation. Most of the employees tend to have low instruction procedures that generate unclear data and lack of final products quality as the outcome (Josef & Blaga, 2015). Sometimes the speed of presentation become the barriers for the employees in absorbing the knowledge. Moreover, the physical way of training is not creating excitement for the employees (Khanfar, 2014). The reason is because they do not feel motivated and engaged. However, disengagement is contagious, which means if many people are not going for the training, the more people also will

think that training is not so necessary. The other factor is due to the long duration of training which create low productivity in absorbing the knowledge. Lastly, unsuitable training design also become the most common causes of the training inefficiency (Khan, et al., 2011). Most of the employees are taught the knowledge which are not applied when they work practically which leads to the cost and time wastage. Therefore, conducting the training programme solely must focus on the employee needs.

### 2.2  Past Experience

During the internship period, the researcher encounter that the instructor always become the centre of interest in physical training and development practices, since they are recognized as the experts. The problems appeared when the employees are not fully absorbed the knowledge and engaged in the class. Hence, the process of learning is only communicated one way. However, conducting the physical training and development is costly expensive and require a lot of time. Solving the problem, the e-learning training methods are proposed to manage the company efficiency.

### 2.3  E-learning

Based on the pyramid degree of different levels in development of HRM and training, HR needs strategic HRM and training tool to focus on its long-term development for the business processes (Muiswinkel, 2012). In order to solve all the issues and challenges, the research will be more focusing on the development of e-learning tool in providing efficient training in HRM. E-learning or distance learning is the learning system which support and facilitate the users to train them through computer and network technology that is connected to the internet (Wahyuningsih & Makmur, 2017). E-learning has some benefits for the company to support its business, such as, in terms of ease of use, availability, accessibility, cost and time efficiency, personalization, security and so on. As the discussion, the research will evaluate on how HR department can enhance the management efficiency by conducting e-learning technique to improve the employee efficiency. The significance of implementing the e-learning in training programme is to provide flexibility for the employees which able to manage cost and time efficiency for organization.

E-learning able to give positive impact for training in HRM. Self-discipline has a huge impact that can affect the learning results. Employee self-discipline can be influenced by teaching staff, learning instruments and rewards which create the employees engagement (Gorbunovs, et al., 2016). For example, the organization can give job promotions or appreciations for the employees who are giving much efforts in utilizing the e-learning system. Based on Docebo report in 2014, e-learning also can help the company from being left of its competitors (Docebo, 2014). It helps the organization to sustain their business in the industry.

In this research, the project will be focusing on the adoption of e-learning method using web 2.0 model concept. The adoption of e-learning using web 2.0 tools has provided the instructors with the new learning potentials in different kind of learning settings (Zakaria, et al., 2012). E-learning acts as the

medium for learning activities in performing collaborative tasks and social communications for each of entity, such as teaching videos, web forum discussions, and so forth. Besides, ensuring the employees acceptance of using e-learning web 2.0 platform adoption, Technology Acceptance Model (TAM) is proposed (Haryaka, et al., 2017). TAM is used to forecast the users behavior using two critical factors, such as perceive usefulness and ease of use.

## 2.4  Similar Researches Working in the Same Area

Similar work that analyse training and development, Jalal Hanasysha (2016) conducted a study in examining the effects of employee empowerment, teamwork and training as the commitment to assure organizational effectiveness in Malaysian higher education. The study used quantitative methodology by collecting online survey from 242 employees at the public universities in Malaysia. Based on the results, the findings confirmed that employee empowerment, teamwork and training have a critical positive impact on organizational commitment. The findings also explained that training is an important technique to improve the employee skills and knowledge. So that they can perform their duties efficiently. However, the study has limitation where the sample population is only limited to academic and administrative staff working in public universities. As the proposed issue for this project, research will leverage to analyse the platform which can be used to manage organization training, especially in the area of Malaysia IT industry.

Based on Gorbunovs, et al. (2016), the researchers were discussing the issue on how to prove that self-discipline and motivation to gain knowledge in daily activities of e-learning process could be contemplated as the key indicator to enhance the learning results. Lack of self-discipline and motivation could affect to the social issue and laziness respectively. As the conclusion, self-discipline has positive influences which can affect the learning results. Moreover, teaching staff and learning instruments has the responsibility in student's motivation. For research limitation, the study just proving whether self-discipline and motivation are affecting the e-learning process through quantitative data collection survey.

## 2.5  Filling up the Gaps

Filling up the gaps from the current similar work, this research will analyse e-learning as the platform to manage the organization training and development. Moreover, the research also will find the better way on how the organization can provide better engagement platform to attract employees in learning new skills in enhancing organization performance. In order to track the success of e-learning implementation, Key Performance Indicator (KPI) exam will be proposed. KPI is a set of measures which is more concentrating on how to improve the employee performance with the business goals. In order to motivate employees, this research will provide Key Performance Indicator (KPI) exam every three months for the students and give rewards for them who can pass the exam. For instance, the employees can be rewarded by giving them job

promotions, appreciations or certifications as their hard work, dedications and performances in improving their skills. In this case, the area of research being analyzed will be more focusing on the working environment, especially in Malaysia IT industry since it is one of the largest industry which need the improvement in its training and development practices.

## 3.    Scope of the research

The research will be more focusing on the working environment in Malaysia IT industry. The reason is because IT is one of the largest and developed sector which gives the highest contribution to the country goal in achieving developed nation by 2020. Most of the IT industry desire has been changed beyond its traditional role. From the positive domestic outlook from e-commerce and IT services aspects, the need to acquire and develop sufficient talent to keep with the IT rapid growth is increasing (Kumar, 2017).   Moreover, the IT projects opportunities also are getting higher in the country (Chung & Chee, 2018). For instance, many foreign companies are coming and investing IT projects in Malaysia industry sector. Additionally, mobile telecommunications are keep growing and the companies need skilful IT developer which can provide the mobile app implementations for them, like mobile banking. Cloud computing also opened wide opportunities for more application integrations and security. Malaysia is currently running a fast development in IT industry to improve their Gross Domestic Product (GDP) to achieve their target. As the analysis, the need of efficient training and development is important to develop the employee skills and knowledge in enhancing their organization performance. In this case, e-learning implementation methods will be proposed to improve the training and development efficiency.

As the outcome of the project, the adoption of e-learning web 2.0 adoption will be proposed for the internal integration of the company. Then, the readiness of the employees within the organization will be analyzed using Technology Acceptance Model (TAM). The measurement is referring to the employees perceived usefulness and ease of use. At the end, the e-learning level of effectiveness will be measured using Key Performance Indicator (KPI) to identify whether the employees have fully utilized the e-learning methods or not.

## 4.    Significance of the Research

E-learning implementation in managing training and development will be proposed using web 2.0 adoption model that allows the customers to provide easy access to training resources and interactions with the instructor or other employees in regards of the relevant topic. E-learning will help the organization efficiency in engaging the employees by cutting the budget and manage the time in the organization training and development programme. Moreover, it gives flexible learning for the employees in accessing the resources in anywhere at any time since everything is online (Balaji, et

al., 2016). The employee able repeat the information if they missed any information and ask any questions through discussion forum online. So, there are no communication barriers between the instructor and employees.

On the side of cost benefits, the transition of traditional physical class to e-learning environment able to reduce the organization expenses. It will cut the cost of accommodation for travelling staff and instructor to the training venue, the cost of hiring the room for the event and instructor cost. Cisco is one of the company who has implemented the e-learning system. They mentioned that it reduces 40% of their training cost with 40%-80% faster than the traditional training programme. In addition, Cisco also able to save $511,000 per week across the enterprise system. Previously, Cisco had to gather their channel partners twice a month to 40 participants at a time from all over the world. Using e-learning method, the company able to reduce their loss of productivity around $1.2 million per annum of a programme. The other company, Motorola also possessed e-learning method and they mention that the number of users are keep increasing yearly from 30% in 2001 to 50% in 2003 (Zornada, 2014). It proofs that e-learning is very helpful to improve the organization performance and reduce huge amount of cost expenses in the huge company like Motorola and Cisco. Therefore, the cost can be allocated to more important resources in the organization.
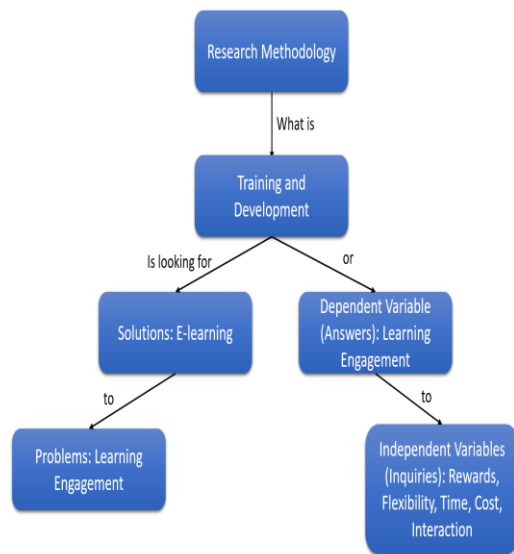
## 5. Research Methodology



*Figure: 1. Research Process Model (Stripling & Pitts)*

### 5.1  Research Approach

As the research approach, the study will be conducted on how to improve the employee engagement by providing good strategic training using e-learning as the platform to focus on organization efficiency in long-term development. According to Maslow's theory, motivated and engaged employees will make valuable asset for the organization strengths and enhance business growth (Kaur, 2013). The HR department must

strategize the employee motivation in gaining new knowledge and skills to engage their employees. It is a complicated issue as everyone is different and unique. Moreover, the measure of success in training is not making the employees to learn new things, but find the way on how the employees can drive the business to achieve the business goals. This problem is subjective for the employees, as it affects a direct correlation between levels of engagement and the quality and quantity of work the employees. In fact, based on the latest survey conducted in Management Training Coaching website, it is mentioned from 142 countries only 13% employees feel engaged, while 63% are not engaged and 24% are totally disengaged since they are not motivated (Goldschmid, 2016). Therefore, it is important to know the relevant factors that can influence the employee engagement in e-learning. Figure.1. Shows the diagram flow of research process using Stripling & Pitts model.

Some relevant factors that can drive the employee engagement in e-leaning are analyzed in this research. Based on the Balaji, et al. (2016), e-learning provides flexibility in learning whereby they can learn anywhere at any time. In this case, some employees need to have their own time whereby they can access the learning resources and study when they are having the mood. So that, they can absorb the knowledge better. Besides, cost effectiveness also become a critical factor, since the employees do not have to travel in accessing the information. On the organization side, the cost of conducting training in physical classroom is expensive. The reason is because, the company need to hire the experts to give the lecture talks on the spot. Moreover, the company also must spend the money for employee commutation, consumption, infrastructure rentals, paper and documentations, transportation to bring the expert and classroom rental. Hence, E-learning will help to cut the cost in conducting the training programme. On the other hand, e-learning provides the time efficiency in learning. The physical learning takes longer time since the company has to cover more materials to get the same basic understanding for all of the employees. Sometimes the training also conducted for 3 working full packed days which will create the feeling of bored and saturated among the employees. Not everyone will get the same understanding after attending the training as the learning outcome. The reason is because the people type of study are different. Lastly, e-learning become the online platform to reduce the barriers between employees and instructors. It allows the users web interaction and discussion. Therefore, the employees can ask the questions anytime whenever they are having the thoughts.

### 5.2  Dependent and Independent Variables

As the analysis, this study will use two variables which comprises dependent and independent variable. Independent variable is the characteristics or factors which can be manipulated to study its effect on the other variable while conducting the experiment (SP, 2013). In this case, the independent variables are consist of several factors, such as, rewards, flexibility, time, cost and interaction. On the other hand, dependents variable can be defined as the results of

actions from relevant factors in independent variables. In this case, employee engagement is considered as dependent variable since it determines the employee behavior once the e-learning platform is adopted in the organization for the long-term development. Hence, the organization will know the level of acceptance, accuracy and time taken in performing the e-learning platform to improve organization performance.

**5.3  Data Collection Method**

Data collection method is the systematic approach to gather and measure the information from various resources to get detailed information in the area of being analyzed. Data collection method can help the researcher to sustain the research integrity, establish the business decision and give quality assurance of the project. In this project, the researcher will use two data collection method, such as, primary and secondary research.

For primary research, the research will use mixed methods that comprise interview and questionnaire. The reason of using mixed method is because it provides cover the weaknesses of conflicting data and theory (Malina, et al., 2015). For instance qualitative data may biased and does not explain statistical generalization. However, quantitative data may weak in understanding from which the data is collected. In this case, mixed method able to balance the weaknesses by allowing both of data exploration to collect more comprehensive data. Besides, it also acts as the theory building and testing whereby qualitative method perform as the method to prove if the data is wrong when the data is not match with the established theory. However, the quantitative methods are suitable to confirm the theory where true experimental control impossible. Lastly, the researcher can use both number and words as the final outcome in communicating the results and findings.

**6. Construct Validity and Reliability**

*6.1  Research Validation*

Construct validity main aim is to identify if the interpretation created about the results and assessment are meaningful and support the purpose of assessment.

*6.1.1 Qualitative Research Validation*

In the qualitative research validation, the research will use triangulation method using peer reviews technique. Triangulation refers to the use of two or more data sources, methods and different perspective of investigators (Golafshani, 2003). Therefore, the researcher can improve the level of knowledge about training and development from different aspects. In this case, after interviewing the HR department and system developer on domain and technical side respectively, the results will be checked with the literature review to confirm whether the information is aligned or not. Therefore, the researcher can drive the conclusion to confirm that information is valid between the real case in current industry and previous research conducted.

*6.1.2 Quantitative Research Validation*

In quantitative research validation the research is using content validity using the subject-completed instrument, which is questionnaire. Content validity refers to the appropriateness of the content of an instrument, which means that the respondents are answering the questions accurately based on their real experience, not guessing, wondering or according to their feelings. In this case, the questions should be delivered to the right subject within a particular area of research. Hence the results can be evaluated to produce the desired outcomes.

*6.1.3    Reliability*

Reliability is a test which is seen when it can be used by different number of researchers with consistent results, replicable over time and free of error.

*6.1.3.1   Inter-rater Reliability*

In this project, the project will utilize inter-rater reliability to measure the degree to which different raters able to give consistent answers and agreement in their judgment. For example, the two quantitative method and qualitative method will be checked if the answers are consistent which produce the similar outcome. If the information are aligned together, it indicates that the information is positively correlated and the research has higher level of accuracy.

*6.1.3.2   Testing Approach*

Under the testing approach, this research will utilize case study evaluation technique. It is suitable for the project on how to prove to the top level manager in the organization that using e-learning able to enhance the business performance. In this case, the poof can refer to the similar research papers which have been analyzed and check with the experts. Therefore, the expected results can be achieved.

**7.   Result and Discussion**

Result analysis is analyzed and interpreted after collecting the information from the primary research. Result analysis has the purpose to summarize and conclude all of the data from primary research. In this project, the pie chart diagram which is generated from the Google Survey will be utilized to represent the percentage of the result answers from questionnaire. So that, the researcher will know which one is the most answer among all. Besides, the interview answers also will be analyzed to verify that e-learning methods will bring benefits for the organization training and development.

**8.   Conclusions**

In this research project is providing the strategy on how HR department the can enhance their organization performance in managing training and development in the field of Malaysia IT

industry. Some major problems which are faced in conducting the training and development in the organization are organization inefficiency, high cost and time management which leads to low of engagement. In order to solve the problems, the e-learning methods are proposed as the strategic strategy in HR in maintaining long term-planning technique to enhance the organization performance. Then, the aim is proposed to solve the problems and some objectives are used to evaluate the action taken to achieve the goal. Afterwards, the research questions are covering the solutions on how to solve the problems.

This research is using primary research and secondary research in supporting the research questions. The information which are collected will concentrate on the area of Human Resources (HR) trends and importance in organization, training and development which influence the organization performance, and the implementation of e-learning method as the platform to improve organization efficiency in conducting the training programme. As the analysis, e-learning must provide the methods which can solve the issues in managing training and development. Specifically, e-learning must provide rewards, flexibility, time, cost and interaction in driving employee engagement. Additionally, it must have the platform to measure employee performance once e-learning has been implemented. In this case, Key Performance Indicator (KPI) exam will be applied to measure the employee job performance. KPI will determine if e-learning is useful in enhancing the employee skills to improve organization performance.

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