

Factors Affecting Employees' Motivation to Use E-training in the Manufacturing Sector in Thailand

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Abstract

The manufacturing sector, inclusive of agricultural processing, beverages, electric appliances, computers and parts, furniture, plastics, and automotive parts have greatly contributed to the growth of national income. The sector creates jobs and income for the country and contributes to a highly skilled and educated labor force. However, the recent shift in manufacturing firms moving up the value chain and expanding their capabilities to produce greater value-added products, has generated the need to further improve the effectiveness of employees. E-training is an alternative training approach to traditional classroom-style training, and many large firms have begun implementing this electronic training for their employees. This research studied the current implementation of E-training in manufacturing firms and identified significant factors affecting the employees' intention to use E-training. Both primary and secondary data were gathered to identify potential factors. Data were collected randomly by means of self-administrative questionnaire. Questionnaires from 400 employees in manufacturing firms was collected and analyzed by using factor analysis and multiple regression. The result indicates that there are seven significant factors that influence the adoption of e-learning by manufacturing organizations: Trust, Reward, Ease of use, Social norm, Attitude, Virtual learning, and Education level.

Keywords: E-training, human resource management, manufacturing industry in Thailand

1. Introduction

Proficiency of people within the organization is one of the significant keys of firm development. This is because high proficiency of employee can lead to positive outcomes and affect a firm's productivity and profitability (Imran, 2013). A proper training with necessary information and skill sets can assist employees to bring out more potential to accomplish their work. Effective and well-performed employees can induce the organization to reach its global competitive market and impact on growth and profitability (Kananurak, 2011). Lifelong learning and workforce productivity are known as the important components to support a business strategy in an increasingly changing market. Therefore, E-learning is proven to be an excellent way to accomplish effectiveness.

Today there are so many organizations who adopt E-learning methods to reform their performances. Moreover, E-learning is instructional media that pass on knowledge via an electronic device including computer and internet such as computer-assisted instruction, web-based instruction, online learning (Jeerapattannatorn, 2016). It is also referred to as E-training. E-learning is one of the interesting technology tools. This study is aimed to identify the influential factors the effect the intention of the employees to adopt E-training in the context of manufacturing industry in Thailand.

According to The Stock Exchange of Thailand (2015), industries in Thailand can be divided into eight important categories including Agro & Food Industry, Consumer Products, Financials, Industrials, Property & Construction, Resource, Services, and Technology. Gross Domestic Product (GDP) of Thailand in the year 2016 is 406.84 billion US dollars. The proportion of GDP in the three sectors is 8.9%, 35.9% and 55.3% for agricultural, industrial and service sectors respectively (Central Intelligence Agency, 2016). Although GDP in the service sector is greater than the manufacturing industry, this project emphasizes assessing the opportunity of implementing E-training in the manufacturing industry. Skilled workers are important inputs for this industry, and they are needed to be trained to improve their productivity constantly. In addition, E-training has been implementing widespread in the service industry; for instance, transportation companies, airlines companies, educational and hotel businesses.

The manufacturing industry generates the GDP to Thailand economy for about one-third of the total GDP. In addition, the employed person in the manufacturing industry is accounted for 16.61 percent of total amount of employed person (The Office of Permanent Secretary Ministry of Labour, 2016). The manufacturing industry is certainly a significant contributor to the overall of Thailand's economic growth. Since the majority of the manufactured products are exported to other countries, it is a source of national income each year. In summary, a successful implementation of E-training in this industry will lead to a substantial improvement on the workforce in the industry. The research is aimed to study the opportunity of E-training in the manufacturing industry and identify significant factors affecting the intention of using E-training.

2. Literature Review and Hypotheses Development

Theoretical Foundation

Human Resource Management (HRM)

Human resource management is known as the effective management of people in the organization. Since it is directly related to the human, it involves in every management decision and actions that significantly influence the relationship between employees and the organizations. Training and employees development area is one of the major areas of human resource management. The main purpose of training is to improve the skills of the employees, in order to maximize the efficiency and effectiveness of their employees (Mitiku, Argaw, and Bayissa, 2015).” According to Kim et al. (2016), developed countries have shown the spread of technology, which increased the demand for high-skilled workers. Many organizations have realized the importance of training.

Employee Motivation

Motivation is a tangible and an intangible thing that human resource or organization use to encourage their employees to increase productivities by satisfying employee's goals. As a business owner, revenue and productivity needed to be optimized. Hence, you have to motivate employees to work as efficiently as possible (Jacoby, 2014). One of the most effective motivation ideas is “training” because it helps employees learn specific knowledge and skills. Employee training is also a key factor in employee motivation. Therefore, employee motivation also related to the future opportunities of the employees to get promoted and grow in the career path, which are integrated as the employee's happiness and satisfaction (Heathfield, 2017).

Theory

“The theory of reasoned actions is a theory that focuses on a person's intention to behave a certain way” (Lezin, 2003). An intention is the probability that a person will behave in a particular way and in a particular situation; it is the primary factor of behavior. This theory considers the person's attitude and how that attitude affects behavior, as well as the norms that may have a significant impact on the attitude. According to Lezin (2003), attitude towards behavior is influenced by the behavior of two related factors which are beliefs about the consequences of their behavior and the evaluation of the potential outcome. Similarly, norms are the results of our perceptions of the beliefs of the relevant people that influence our life including parents, friends, and colleagues. According to Fang et al. (2017), norms are influenced by individual behaviors by external social factors. Therefore, attitudes and norms can be a critical factor in motivating the employee's interest in E-training.

Research Framework

To successfully implement E-training technology in a manufacturing firm, acceptance of using this technology as a part of training is significant. Therefore, the following are potential factors that motivate employees to use E-training technology.

Age is a significantly important factor in training participation. According to Meyer (2011), the firms with older employees have less probability to employ and use new technologies when comparing to those firms with younger employees. Ben-Porath (1967) explained that older workers seem to have less training participation because of the reduction in the need for further education (Fritsche, 2012). Therefore, age is a significant factor that affecting the willingness of an employee to train E-training.

Education level is related to any prior schooling that has been successfully completed. Educational level includes all the educational background such as high school diplomas, college degrees, credit from online courses, and vocational programs. According to Fritsche (2012), the employees with higher education level influence on the ability of the employees to acquiring new skills and knowledge. Therefore, it leads to a higher chance to perform an efficient manner and success in training participation.

Trust is a powerful motivational tool for a leader, and it is one of the top factors that influence employee's motivation to achieve (Llopis, 2012). Due to De Meo, E-learning class formation will benefit only when the needs of the learners are fulfilled. For instance, trust among people supports and motivates the classmates to participate in the activities (Pasquale et.al, 2017). In addition, trust is a significant component for achieving the project (Lennerholt, 2006).

Ease of use refers to the easiness of using instruction and the flexibility of location and time to use. The review of Alkali & Mansor's study showed that employee perceptions of ease of use significantly affect the intention of the people to use an information system (Alkali and Mansor, 2016). The easiness and flexibility can allow anyone to participate in the training at any time, anywhere, and any device (Scott, 2017). Moreover, it can accommodate the needs of participants who have varied hours of learning as well as who have difficulty to attend a regular class (Bhatia, 2011).

Work experience is a period of placement that employee spends working in the workplace in order to get insights into a particular type of job (Department for Education and Skills, 2002). According to Fritsche (2012), longer employees have worked, the more experience they acquired, this leads to a reduction of desirable engagement in the training. However, Ford et al. (1993) found that an individual gains greater experience in the job, they

began to value training more highly. Therefore, work experience affects an employee's intention to use E-training.

Reward is the benefits that workers receive from their jobs (Jehanzeb et al., 2012). Referred to reward motivation conducted by Pappas, one of the most powerful ways to motivate employees in E-training is to offer them rewards (Pappas, 2014). An employee like to feel a sense of accomplishment. For this reason, many E-training companies are now using certification online training courses to fuel motivation and engagement (Pappas, 2017).

Social norm refers to Clark et al. (2018), "social norms are informal rules derived from social systems that prescribe what behavior is expected, allowed, or permitted in particular circumstances". There are three major reasons of the individuals to follow a rule. The first reason is they perceive that majority of people follow the rule. The second reason is that other people expect the rule to be followed. The third reason is to recognize benefits from following the rule or social consequences of being perceived as deviating from the rule. According to Hernandez et al. (2011), when one finds that people around him or her use an E-learning and perceive some value, the willingness to use E-learning of the individuals will be increased.

Attitude refers to Jain (2014), "attitudes are held with respect to some aspect of the individual's world, such as another person, a physical object, a behavior, or a policy". Attitude represents the ways that a person responds to the surrounding environment. According to Liaw et al. (2007), individual's attitudes affect the usage and adoption of information. Additionally, based on Francis et al. (2015) point of view, learner's attitudes directly contribute to the learning outcomes. Good attitudes positively influence the effective, motivation, and application of the learning. Therefore, the effective of E-training is partially depended on the learning attitudes rather than the higher level of technological advancement. The positive individuals' attitudes on E-learning lead to the higher chance of the intention to use it.

3. Research Methods

Sample Selection and Data Collection Procedure

The population consists of employees in the manufacturing industry. The sample consists of one group which is current employees in the manufacturing industry. This refers to those who have directly involved in manufacturing industry or been in charge of management authorities. The sampling technique used is a random sampling. For data collection processes in this study, two techniques are employed.

The first technique is secondary research, the documentary research from the credible sources including literature surveys, journals, articles, previous research works, and case studies related to factors affecting intention to use E-training.

The second is the empirical survey research. Surveys are done by means of a questionnaire survey to employees who currently work in the manufacturing industry. More than 500 sets of questionnaires were distributed by both postal mail and e-mail to manufacturing firms in every parts of Thailand. The total of 400 sets of the valid questionnaire was collected.

The questionnaire consists of three parts. It starts with open-ended questions and multiple choices about general information of respondents including age, gender, and education level, type of manufacturing industries, job department, job position, work experience, and income as shown in figure 1. The second part consists of open-ended questions and multiple choices about E-learning experience, E-training experience, the frequency of use and intention to use E-training. In the third part is based on 20 questions in 6 different categories as indicated in table 1. Each respondent has to identify his or her level of intention toward E-training.

The five-point Likert scale is applied where 1 refers to extremely disagree and 5 refers to extremely agree with the statement in each item. All categories of questions seek to identify the factors affecting employees' intention to use E-training.

Part 1: General Information			
1. Age.....Years:	Gender: () Male	() Female	
2. Educational level:	() Below High School	() High school or higher	
() Diploma or Equivalent	() Bachelor	() Master or higher	
3. Type of Manufacturing Industry Business: () Housewares and Office equipment () Agriculture () Media and Publication			
() Food and Beverage	() Personal care and Medical supplies	() Packing	() Electronics part
() Industrial supplies and machine	() Paper and Printing supplies	() Automotive	() Energy
() Petrochemical and Chemicals	() Building Material	() other specify	
4. Your Current Department:			
() Secretary	() Document Officer	() Quality check	
() Marketing/Sales	() Accountant/Audit	() Engineer	() Finance
() Maintenance	() Human Resource	() IT	() Consultant
() Customer Relation	() Production	() Purchasing	() Design
() other specify.....			
5. Your Current Position:			
() Operator	() Staff	() Supervisor	
() Manager assistant/Deputy Manager	() Manager	() other specify.....	

Figure 1: Questions of Demographic and General Information of Respondents

Model Specification

Reliability Test

A key indicator of the quality of measuring instrument is the reliability of the measures. Reliability test is used to evaluate the consistency of measurement and internal consistency (Mohamad, Sulaiman and Sern et al., 2015). Cronbach's alpha is one of the well-known methods for estimating internal consistency reliability (Leontitsis and Page, 2007). The result of Cronbach's alpha is ranging from 0.00 to 1.00. The higher value of coefficients indicates the higher levels of reliability. According to Carole and Almut (2008), the acceptable range of Cronbach's alpha is ranging between 0.70 and 0.90.

Table 1: Examples of questions in part 3

Categories	Items	Categories	Items
Ease of use	1. Procedure and instruction 2. Flexibility on study and location 3. Flexible time 4. Requirement of IT staff	Virtual learning environment	1. Media Quality 2. Counsel with expert 3. Knowledge Assessment
Trust	1. Secure system 2. Personal information security 3. Content accuracy	Rewards	1. Position Promotion 2. Bonus 3. Career Development Opportunity
Social norms	1. Henchman Influence 2. Colleague Influence 3. Field Colleague	Attitude	1. Learning Achievement 2. Knowledge Advantage 3. Knowledge application

Factor Analysis

Factor analysis is a technique that used to reduce the number of variables of factors. It is utilized for grouping data or grouping variables that are correlated in the same group (Taherdoost, Sahibuddin, and Jalaliyoon, 2014). Kaiser-Meyer-Olkin (KMO) is employed to measure sampling adequacy and Bartlett's test of sphericity. KMO is used to indicate the proportion of variance that might be caused by underlying factors. The result of KMO index is raging from 0 to 1, the data are suitable with the KMO index is at least 0.5 (Williams, Onsmann and Brown, 2010).

Multiple Regression Analysis

Multiple regression is employed to measure the relationships of multiple independent variables with a dependent variable. After the relationships were identified, the information of the independent variable can be used to explain why things are the way they are (Higgins, 2015). Therefore, multiple regression is appropriate for analyzing the data in this research.

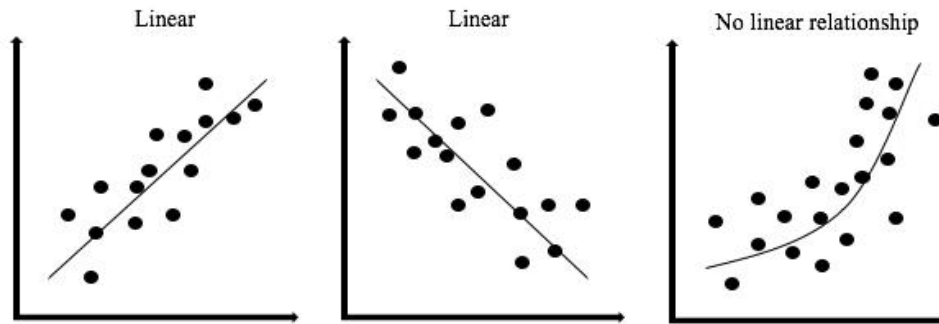
$$\text{Multiple regression } \hat{Y} = b_0 + b_1(x_1) + b_2(x_2) + b_3(x_3) + \dots + b_k(x_k) \quad (\text{eq. 1})$$

In order to validate the result of multiple regression, these following assumptions are required to check that the data can be analyzed by multiple regression.

Assumption 1: Independent of observation or residuals are used to check the result by using the Durbin-Watson statistic.

Durbin Watson (DW) is an investigation that the residuals are independent. Durbin-Watson tested independent variable to find autocorrelation in a variable. Durbin-Watson statistic ranging from 0 to 4, the range 1.5 to 2.5 means independence. It is indicating that there is no correlation among the residuals. If the resulting value is less than 1.5 and more than 2.5, it indicates a problem with autocorrelation in multiple regression analysis (Khon Kaen University, 2018).

Assumption 2: The relationship between dependent and independent variable is linear relationship. In order to measure the linear relationship, the scatter plot and partial regression plot is employed in SPSS Statistics program. If the results of scatterplots and partial regression plots show the linear relationship, they are appropriate to use the linear regression.



Source : Laerd Statistics (2015)

Figure 2

Assumption 3: Homoscedasticity describes the different level of variance of errors across the independent variables. This means that errors are spread out consistently between the variables. Heteroscedasticity occurs when the data have a variance of errors is different at different values of the independent variable (Osborne, J., Waters, E., 2002).

Assumption 4: No multicollinearity in the data. Multicollinearity is the situation that two or more explanatory variables are correlated. Therefore, it is difficult to distinguish and explains the shared variance. In some cases, these multicollinearity variables are representing the same factor (National Center for Research Methods, 2011). They have multiple methods to check the multicollinearity in the dataset including the correlation matrix and Variance Inflation Factor (VIF).

Correlation matrix: This matrix is computed among independent variables by Pearson's bivariate correlation, the correlation matrix is acceptable when the correlation coefficients less than 80 (Statistics Solution, 2018).

Variance Inflation Factor (VIF): Multiple regression model uses VIFs for detecting collinearity among predictors. High VIFs reflects increasing of estimated regression coefficient due to collinearity among predictor variables. In a model, its presence can adversely affect regression results. The VIFs measure the enlargement of a variance of a regression coefficient in the model due to the multicollinearity (Murray et al., 2012). If the result of VIF is equal to 1 it means there is no multicollinearity, if it greater than 1 it can be assumed that some variables are correlated. VIF ranging from 5 to 10 means they have a high level of correlation. According to Akinwande, Dikko, and Samson (2015), VIF value more than 10 means the regression coefficients are poorly because of the multicollinearity.

Assumption 5: There should not have significant outliers, high leverage points or highly influential points. Those terms are used to present unusual data set in the observations that should not occur when performing that multiple regression (Laerd Statistics, 2015).

Outliers detection is needed by using Casewise Diagnostics and Studentized Deleted Residuals. If Standardized Residual in Casewise Diagnostics table is greater than +3 standard deviations, it can consider as an outlier (Laerd Statistics, 2015).

Assumption 6: The distribution of the data should be a normal distribution. The non-normally distributed variable leads to the misrepresentation of the relationship and significance tests. Two methods to test for the normal distribution assumption are histogram with a superimposed normal curve and P-P Plot or Normal Q-Q Plot of the studentized residuals (Laerd Statistics, 2015)

4. Results

Sample Characteristics

Summary of descriptive statistic is summarized in table 2. Of these 400 questionnaires, 44 of them are considered as outlier so only 356 questionnaires are analyzed due to outlier assumption. Most of them are female and they are in the position at least two months. The result found that 59.75% of 400 respondents are bachelor’s degree and 64.5% is female employees. There are 78.25% of all respondents are interested in E-training although some of them have never used E-training before. Also, 51.5% of them are in the staff member position. In addition, the majority of them are in the age between 20-30 years old or 35.25%.

Table 2: Respondent profiles

Variable	Frequency (%)	Variable	Frequency (%)
Age		Job position	
20-30	141 (35.25%)	Operation	25 (6.25%)
30-40	135 (33.75%)	Staff member/Employee	206 (51.5%)
40-50	93 (23.25%)	Supervisor	88 (22%)
50 up	31 (7.75%)	Assistant Manager	33 (8.25%)
Gender		Manager or higher	48 (12%)
Male	142 (35.5%)	Position duration (years)	
Female	258 (64.5%)	0-5	174 (43.5%)
Education level		5-10	113 (28.25%)
Below high school	42 (10.5%)	10-15	42 (10.5%)
High school or equivalent	29 (7.25%)	15-20	35 (8.75%)
Diploma or equivalent	43 (10.75%)	20 up	36 (9%)
Bachelor	239 (59.75%)		
Master or higher	47 (11.75%)		
Interested to use E-training			
Not interested			
Interested	86 (21.5%)		
	313 (78.25%)		

Factor Analysis

Principal Component Analysis (PCA) with orthogonal varimax rotation is employed to identify the structure of 19 questionnaire items related to employees’ intention toward E-training. KMO is 0.932 which is close to 1. The Bartlett’s Test of Sphericity indicates that variables are unrelated and therefore unsuitable for structure detection. The significance level indicates by p-value, factor analysis to be suitable when p-value < 0.05 (Williams et al., 2010). On Bartlett’s test of Sphericity, the approximation of Chi-square and the significance is 5,228.002 from 171 df, and 0.000, respectively. According to the results, correlations between items are sufficiently large. Table 3 presents the results of factor analysis and their Cronbach’s coefficients.

Table 3: Results of factor analysis

Factor ^a (0.947) ^b	Mean	Standard deviation	Factor loading	Variance Explained %
Factor 1: Trust (0.822) ^b				14.019
Secure system	3.6685	0.80995	0.7570	
Personal information security	3.5590	0.90345	0.7580	
Content accuracy	3.7079	0.76842	0.6370	
Requirement of IT staff	3.8174	0.90869	0.5350	
Factor 2: Reward (0.898) ^b				13.781
Position promotion	3.9775	0.79757	0.8260	
Bonus	3.8483	0.88780	0.8620	
Career development opportunity	3.8202	0.87612	0.7570	
Factor 3: Ease of use (0.864) ^b				13.419
Procedure and instruction	3.9607	0.76811	0.6560	
Flexibility on study and location	4.0084	0.78179	0.8230	
Flexible time	4.0758	0.76720	0.8230	
Factor 4: Social norm (0.898) ^b				13.143
Henchman influence	3.4326	0.91833	0.7230	
Colleague influence	3.5730	0.86089	0.8070	
Field colleague	3.6011	0.89970	0.8050	
Factor 5: Attitude (0.887) ^b				12.938
Learning achievement	3.8933	0.80131	0.7870	
Knowledge advantage	3.8539	0.80911	0.7460	
Knowledge application	3.9607	0.79691	0.7430	
Factor 6: Virtual learning (0.879) ^b				10.807
Media quality	3.9860	0.77810	0.6580	
Counsel with expert	3.9551	0.79661	0.7630	
Knowledge assessment	3.8567	0.80087	0.6960	
TOTAL VARIANCE EXPLAINED				78.106

^a Principal component factors with iteration: Varimax rotation

^b Reliability score (Cronbach's α) for each factor grouping is shown in parentheses.

Multiple Regression Analysis

The table 4 shows the results of the multiple regressions. In addition, the adjusted R^2 is 0.691. 69.1% of the variation of employees' intention toward E-training is explained by the regression equation. Refer to assumption 1, the Durbin-Watson statistic is ranging from 0 to 4, the acceptable range (no correlation between residuals) is 1.5 to 2.5. Since DW value in this analysis is equal to 1.820, there was the independence of residuals. According to assumption 4, all VIF values are lower than 5 and approaching 1. It indicates that there is no collinearity found between independent variable.

Table 4: Collinearity statistics and regression result of factors affecting intention to use E-training

Multiple Regression Analysis	Unstandardized Coefficients	Standardized Coefficients	<i>t</i>	VIF
(Constant)	3.805		31.141***	
Factor 1: Trust	.162	.223	7.463***	1.032
Factor 2: Reward	.168	.235	7.823***	1.042
Factor 3: Ease of use	.222	.302	9.629***	1.135
Factor 4: Social norm	.145	.204	6.882***	1.009
Factor 5: Attitude	.413	.567	18.921***	1.035
Factor 6: Virtual learning	.176	.238	7.934***	1.036
Education Level	.049	.076	2.272**	1.281
Age	-.003	-0.045	-1.192	1.613
Position Duration	0	0.049	1.319	1.619

Cronbach's Alpha = 0.947 DW = 1.820 Adjusted R-squared = 0.691 F = 89.405***
 *p < 0.10, **p < 0.05, and ***p < 0.01

Normal probability plot is a graphical technique which evaluates whether the data set is approximately normally distributed or not (NIST/SEMATECH, 2012). Figure 3 and figure 4 show the results of normal P-P Plot and normal Q-Q Plot of standardized residuals. The dataset in both plots are relying on the regression line. Therefore, the normality distribution assumption is met.

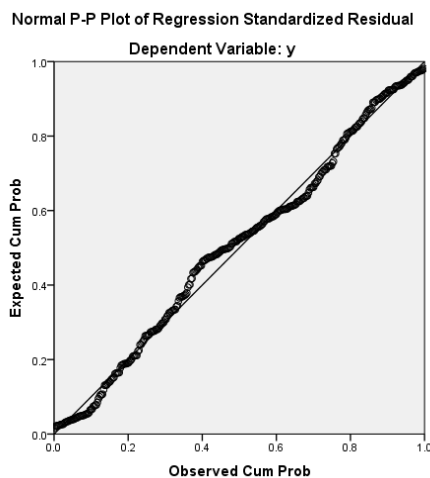


Figure 3

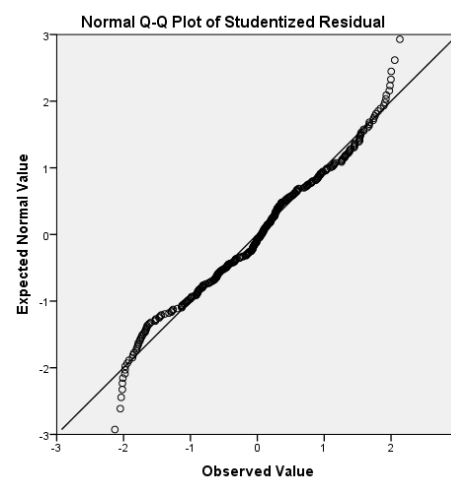


Figure 4

The figures below show the relationship between dependent variable and each of independent variables which are trust, reward, ease of use, social norm, attitude, virtual learning and education level, respectively. The results are likely to be linear thus, the linear relationship between the dependent variable and independent variables are met. Moreover, refer to homoscedasticity of residuals assumption that the residuals are equal for all values of the predicted dependent variable. The figures below indicate that there was homoscedasticity, as assessed by visual inspection of a plot of studentized residuals versus unstandardized predicted values. (Laerd Statistics, 2015)

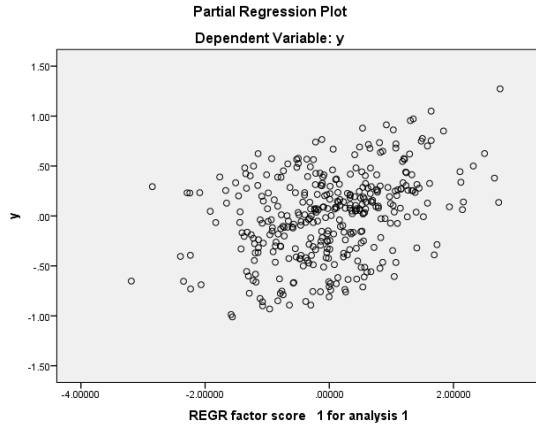


Figure 5.1

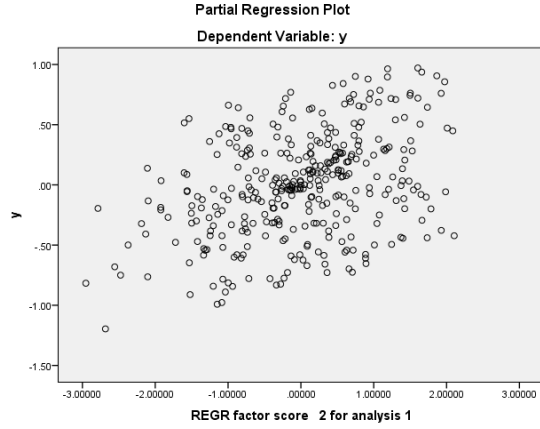


Figure 5.2

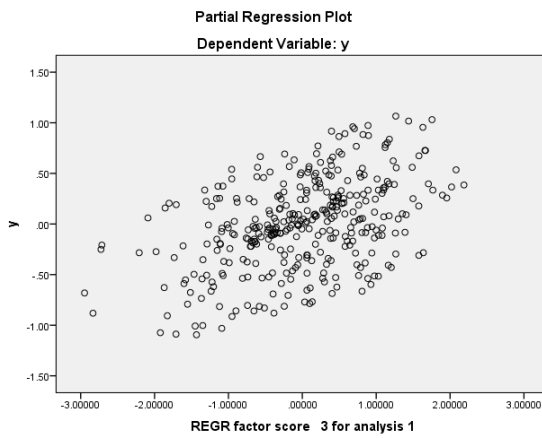


Figure 5.3

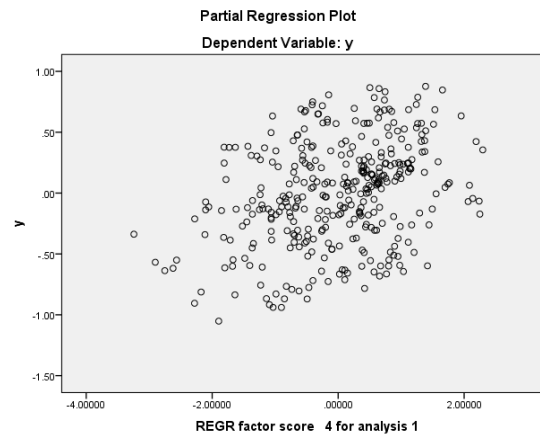


Figure 5.4

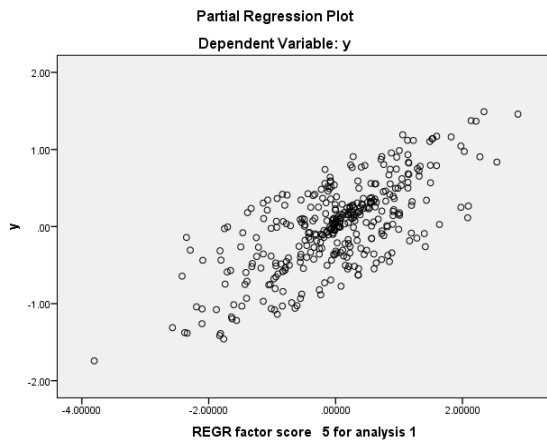


Figure 5.5

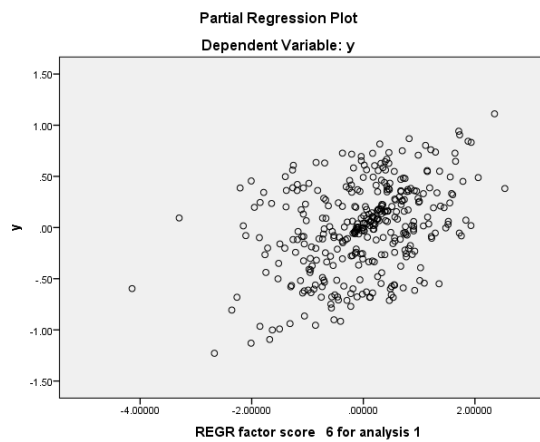


Figure 5.6

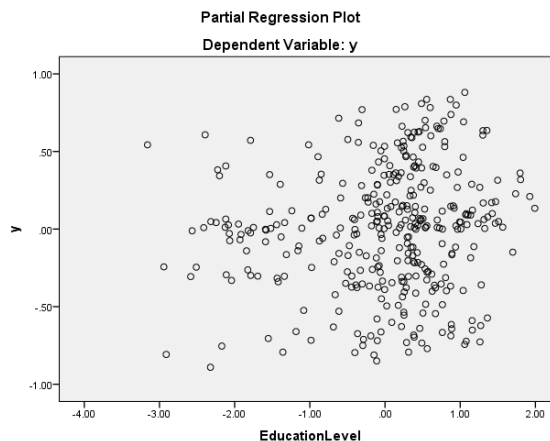


Figure 5.7

One of the major reasons for running a multiple regression is predicting the dependent variable given a set of values for the independent variable. In this study, trust, reward, ease of use, social norm, attitude and virtual learning are used to predict employees' intention toward E-training. The regression equation is

$$\text{Predicted } Y = 3.805 - (0.162 \times \text{Trust}) - (0.168 \times \text{Reward}) - (0.222 \times \text{Ease of use}) - (0.145 \times \text{Social norm}) - (0.413 \times \text{Attitude}) - (0.176 \times \text{Virtual learning})$$

5. Discussion and Conclusions

This study has pointed out the items that explain the employees' intention toward E-training. As the multiple regression suggested, the significant factors that affect employees' intention are trust, reward, ease of use, social norm, attitude, virtual learning, and education level. The results show the most influential factor affecting employees' intention toward E-training is the attitude. The positive attitude of users toward using E-training system can certainly motivate them to adopt it. The positive attitude that influences intention includes learning achievement, a knowledge advantage, and knowledge application. The second significant factor is ease of use, which is referred to its ability to let any users use its easily and flexibly at any location and any time. As shown in Alkali & Mansor (2016) studied that easiness and flexibility can let employees participate in training from anywhere, anytime, and any devices. The third significant factor is virtual learning. Features that influence the intention to use such E-training service include media quality, counsel with expert, knowledge assessment. The fourth significant factor is the reward.

To reward an employee by giving the benefit to them such as promoting or giving them an opportunity to work abroad is one of the incentives that lead to an adoption of E-training. Employees or users of E-training can be encouraged by allowing them to have a chance to earn some rewards within an organization; the reward does not have to be in monetary. A non-monetary includes a chance to promote within an organization. Furthermore, the fifth significant factor is trust. Users demand service providers or company keep their information private and secure. If users can trust an E-training system and can be ensured about their personal information, they are likely to adopt the E-training as one method of training. The sixth significant factor is the social norm. Influence from surrounding people, for instance, friend-friend or boss-henchman is one of the incentives as well. For instance, human resource can organize an event to encourage their employees to use E-training by inviting people who have attended E-training to share their experiences.

The last significant factor is education level. This factor shows that higher level of education is more likely to adopt E-training as part of their training, which is same as the results studied from Fritsche (2012) found that a higher level of educational background of the employees influences on the capability of acquiring new skills and knowledge and hence increase the probability of successful training.

Implication and Recommendation

Thailand is a developing country and currently being Thailand 4.0 that support the development of the important industries in Thailand through the value-added and advanced technologies (BOI, 2017). Nowadays, there are many organizations bring advanced technology to develop their organization proficiency. The manufacturing industry is highly involved with the technological operation and always develops new techniques for improving their efficiency. Therefore, training is important for an organization to develop their employee's skills to compete with competitors.

There are many labors in Thailand but they are still needed to improve technological skills. The traditional training may not give enough effectiveness. On the other hand, E-training will give more flexibility than traditional training as it can be performed. Thus, the manufacturing industry should seriously implement E-training however, the changes from traditional training to E-training may lead to resistance from users who familiar with the traditional one. From this study, it shows the decrease tendency of a number of resistant people as well as the increasing tendency of people intention to adopt E-training. In the table of regression result of factors affecting intention to use E-training (Table4) shows the standardized coefficient to analyze factor to motivate intention to adopt E-training. The first factor is the attitude. Leading user by contributing good attitude from the use of E-training. People usually do something better when they have a positive attitude toward them rather than doing with a negative attitude.

The second factor is ease of use. Providing a procedure and instruction for the user as well as let users manage the time of E-training participation by themselves. The third factor is virtual learning. Due to people are not familiar with virtual learning, so there are some resistant in adopt E-learning system. If virtual learning such as 3D and group discussion can be created, it will reduce resistant of people and have the intention to use E-learning. The fourth factor is the reward. This can create by promoting or giving the opportunity to work abroad. This can lead people to have more intention to use E-training. The fifth factor is trust. To build trust with users, this would require a protocol or security system that is reliable from the use of E-training. The last factor is the social norm. Surrounding people is one of incentive in user's intention to use E-training.

Due to the communicating extensively, most people usually like to go with the flow of other's trend by looking at their success. In terms of education level, people who have a higher level of education have the intention to adopt more than the lower one. One of the reason is about the advance in technology. People in high educational level are usually easy to learn something new due to their basic knowledge. Therefore, this must have the IT staff to help the user to use E-training system.

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