



Individual Characteristic Predictors for Training Effectiveness in Thailand: A Study of Internal Locus of Control and Self-Efficacy

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Abstract

This research studied changes in technological innovations and demographics directly affecting careers of which training and development for employees and organizations were important. Locus of control and self-efficacy were studied to confirm individual characteristics that determine training effectiveness. Social cognitive theory was used to explain behavioral change in organizations with regard to training effectiveness. The research applied a quantitative method by using a structured questionnaire. Multiple regression analysis was used to explore predictors on training effectiveness. The respondents were 19 employees in service industries, including real estate and the construction business. The results confirmed that internal locus of control and self-efficacy were positive predictors on training effectiveness of employees in Thailand. The standardized regression coefficient represented significant predictors of responsibility attribution $\beta = 0.443$ and $\beta = 0.260$; $P < 0.05$ for internal locus of control and self-efficacy, respectively. The positive relationship on internal locus of control, self-efficacy and training effectiveness indicated the ability to manage people who had high self-efficacy to participate in training and development program. Future research can study more details regarding other individual characteristics and further relationships between internal locus of control and self-efficacy in different dimensions.

Keywords: Social Cognitive Theory, Locus of Control, Self-Efficacy, Training Effectiveness

Introduction

The rapid growth of business operation is a trend of global business competitiveness. Well-prepared organizations tend to acquire greater benefits than their competitors do. Organizations adequately equipped with a strategy are better able to secure their position in the market whereas those without any adequate strategy are more likely to have difficulty in securing their position in the market. A key element of an organization's competitive advantage therefore lies in its human resources (Lado & Wilson, 1994), and their management systems review the recruitment process as a way to obtain advantage.

As particular skills are required in each career role, organizations attempt to update the skills of the labor force. People who are willing to learn new things will gain advantages and better performance (Brown, 2002). The World Economic Forum (2018a) studied the changes in technological innovation and demographics directly affecting careers, which is rapidly evolving in the workforce. In addition, changes in technological innovation and demographics also can influence future career paths. Consequently, the research also revealed the amount of time that most organizations invested in enhancing skills and capabilities of the workforce in various industries.

How much a company spends on training and the development of employees in organization varies greatly. Some organizations spend much money on training but receive little in terms of benefits. Other organizations delay the implementation of routine training as part of a scheduled long-term plan. One of the major reasons is that the training and development budget continues to affect organizations (World Economic Forum, 2018a). Although the outcome of training remains unclear, a continuing employee development plan should be implemented (Elnaga & Imran, 2013). Consequently, it is necessary to emphasize the importance of training and development and its benefits to employees and organizations (Jehanzeb & Bashir, 2013). In addition, a clarification of the term



‘worthwhile investment’ in training and development is important. Also, the objectives and expected outcomes must be clearly identified.

Fitzgerald (1992) highlighted the importance of training and development for individuals who want to improve their skills and knowledge. In his research, two key words “training” and “development” were studied. The attainment of knowledge and skills required for the present time is defined as training while the attainment of knowledge and skills for present and future development is defined as development. It is necessary for individuals in organizations to prepare, and be prepared, for new challenging tasks. Elnaga & Imran (2013) also supported the idea that employees in an organization need to be equipped with updated skills to optimize their capabilities.

Furthermore, the World Economic Forum (2018b) studied the action plans for solving the skills and knowledge gap in industry. The study also focused on employee capabilities in infrastructure and urban development (IU) which includes hospital, schools, roads, railways, and housing and commercial real estate. The findings revealed high demand for labor in the industry. Similarly, Thailand Professional Qualification Institute (Public Organization) (2019) highlighted required competencies for service industries in Thailand. According to its criteria, many related professional qualifications and professional standards are relevant to service industries. In addition, property management, the real estate business and construction are classified as service industries. Moreover, three relevant professional standards are allocated to service industries (e.g. World Economic Forum’s classification) (World Economic Forum, 2018b). The professional standards will increase benefits by enhancing career opportunities in the future. Their skills meet not only demands for labor in the market, but also national professional standards. Consequently, it is interesting to explore the need for training among employees in service industries.

1. Research Questions

There are questions on positive outcomes of investment in human capital that enhance employees’ capabilities (World Economic Forum, 2018a). Thus, organizations are still reluctant to spend money on training and development for employees to enhance their capabilities. However, organizations are aware of various significant factors that determine training effectiveness. An in-depth analysis of influential factors should be conducted (Jehanzeb & Bashir, 2013). Previous researchers conducted multidimension of training effectiveness. However, some factors need to be clarified. The contemporary issues studied in recent days consist of individual and organizational contexts. Both individual and organizational factors have been studied in training effectiveness research (Mathieu, Tannenbaum, & Salas, 1992). However, other research in training effectiveness pays more attention to individual contexts. Noe (1986) revealed that individual characteristics can vary training outcomes. It is interesting to explore individual contexts in variety of situations and environments. Therefore, there may be other gaps regarding individual characteristics in terms of the relationships between variables (Chiaburu & Tekleab, 2005).

This current research attempts to identify individual characteristics that determine training effectiveness for employees in service industries, including real estate and construction business (World Economic Forum, 2018b; Thailand Professional Qualification Institute (Public Organization), 2019). It also attempts to test hypothesis of locus of control and self-efficacy that have positive influence on training effectiveness.

2. Research Objectives

This research attempts:

1. to explore individual characteristics that influence training effectiveness for employees in service industries including the real estate and construction businesses in Thailand



2. to examine individual characteristics such as gender, age, education, type of work and working years
3. to confirm whether internal locus of control and self-efficacy are able to predict training effectiveness

3. Social Cognitive Theory

Bandura (1989) extended social cognitive theory to include the learning perspective of an organization. Social cognitive theory or social learning theory means exploring the psychosocial functioning of the organization. Organizational performance, in turn, reflects the effectiveness of social learning. Figure 1 shows the reciprocal causation of individuals including behavior (B), cognitive and other personal factors (P) and external environment (E), where there are major cause and effect relationships between the variables. Thus, individuals will perform differently according to different situations (Bandura, 1989).

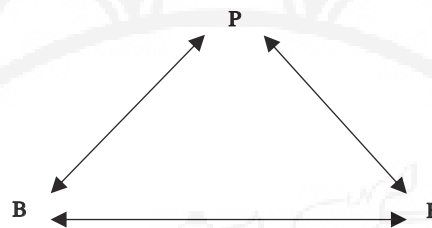


Figure 1 Schematization of the Relationships between Behavior (B), Cognitive and Other Personal Factors (P) and the External Environment (E) (Bandura, 1989)

Social cognitive theory can be investigated by mechanisms of personal agency in the causal interaction platform. Self-efficacy is a factor in behavioral theory, and it is believed to affect an individual's perception of situations (Bandura, 1989; Maddux, 2002), as humans perform and react differently in different situations (Bandura, 1982; Lunenburg, 2011). Bandura & Schunk (1981) initially characterized self-efficacy in the social learning context as the individual's ability to manage assignments to achieve anticipated outcomes (Bandura, 1986). Social learning perspectives can be demonstrated in learning and development activities. Therefore, self-efficacy is often a part of learning approaches (Bandura & Schunk, 1981; Bouffard-Bouchard, 1990).

Furthermore, locus of control is a factor that is often included in social cognitive research. The concept of locus of control includes internal and external locus of control (Rotter, 1966). Locus of control plays a significant role in human behavior (Noe, 1986). Internal-external locus of control demonstrate causal effects of achievements in development activities. Fundamentally, internal locus of control represents how individuals possessing such an attribute believe in their capabilities and rely less on other external factors (Rotter, 1966). It is believed that locus of control has practical implements in organizations, and individuals who are willing to learn and develop their skills in complex learning contexts will be recognized (Rotter, 1966; Noe, 1986; Steensma & Groeneveld, 2010). Furthermore, Rotter (1966) concluded that locus of control is a permanent individual characteristic in learning situations. This is an important factor that has an impact on training effectiveness. The grounded theory of social cognitive will be implemented as theoretical framework. The learning and development activity can be observed among triadic relationships of behaviors, personal factors and external environments. This current research attempts to explore individual contexts and behavioral changes in different environments.



Research Methodology

1. Respondents, Sampling Procedures and Data Collection

The total number of respondents in this research was 191. All respondents currently work in service industries including real estate and construction businesses. The research applied the convenience sampling method by distributing online structural questionnaires (Maurer & Lippstreu, 2008). The online-structural questionnaire was distributed to representatives of 10 local professional real estate companies in Thailand. Then, the representatives helped disseminating to their members by voluntary choice. All of them were completed by the respondents in service industry within one month.

2. Research Instruments

A quantitative method was applied by using a structural questionnaire in this research. All questions were related to the predictor variables of training effectiveness in social cognitive theory. The locus of control contains twenty-six dimensions developed by Rotter (1966) to determine the degree of internal / external locus of control. The self-efficacy was represented by 17 dimensions developed by Sherer et al. (1982). The components of training effectiveness are nine dimensions of the intention to transfer knowledge and skills developed by Fecteau et al. (1995). The items were measured using a five-point Likert scale. The measure of internal consistency of five-Likert-Scale item have been confirmed. The Cronbach's alpha reliability statistics were reported 0.715, 0.723 and 0.911 for locus of control, self-efficacy and training effectiveness, respectively.

3. Statistical Treatments

Multiple regression analysis was used to explore predictors of training effectiveness (Ho, 2013). The social cognitive theory was employed to select the predictor variables for internal locus of control and self-efficacy (Rotter, 1966; Noe, 1986; Bandura, 1989). The research relied on statistical criteria to establish the statistical regression model. The stepwise regression method was applied and based on significant statistical criteria (Ho, 2013).

Results

Table 1 presents the predictor variable results for training effectiveness. The individual characteristics factors included gender, age, education, type of work, working years, internal-external locus of control and self-efficacy to test the association with training effectiveness. The two individual characteristics predictors for internal locus of control and self-efficacy were confirmed to influence training effectiveness. The hypothesis is therefore supported as it was revealed that internal locus of control and self-efficacy influenced the training effectiveness of employees in the selected service industries. To examine the standardized regression coefficient, Table 1 shows the significant predictors of responsibility attributes ($P < .05$). Consequently, Table 1 shows the standardized coefficient $\beta = 0.443$ and $\beta = 0.260$; $P < 0.05$ for internal locus of control and self-efficacy, respectively.

Table 1 Regression Analysis of Predictor Variables

Predictor	β
	Standardized Regression Coefficient
1. Internal LOC	.0.443
2. Self-efficacy	0.260

Note: β = Standardized Regression Coefficient $P < 0.05$



Furthermore, particular model presented in Table 2 is confirmed. Model 1 represents the internal locus of control variable that accounted for 32.1% of the variance (R square). Model 2 presents an R square change of 0.052 when the self-efficacy variable is added. The additional entry of self-efficacy increased the explained variance in the variable responsibility attribution from 32.1% to 37.3%. The research used value to represent unstandardized coefficients. The prediction equation would be

$$\text{where; } Y' = -0.451 + 0.671X_1 + 0.420X_2$$

Y = The Predicted Training Effectiveness
 X_1 = Internal Locus of Control
 X_2 = Self-efficacy

Table 2 Model Summary

Model	Predictors (Constant)	R Square	Adjusted R Square	R Square Change
1	Internal LOC	.321	.317	.321
2	Internal LOC and Self-efficacy	.373	.366	.052

Discussion

The results confirm previous research that studied the influence of individual characteristics on training effectiveness (Rotter, 1966; Noe, 1986; Facticeau et al., 1995; Steensma & Groeneveld, 2010). Furthermore, the significant predictors of the responsibility attribution ($P < .05$) of internal locus of control and self-efficacy represent the strength of the prediction model. Thus, the standardized regression coefficient indicates the strength of prediction equation (Ho, 2013)

1. Internal Locus of Control and Training Effectiveness

Internal locus of control shows a significant independent relationship with training effectiveness. The beta weight of internal locus of control was $\beta = 0.443$, which indicates a strong relationship with training effectiveness. This shows that individuals with an internal locus of control have strong intentions to finish their tasks. Therefore, people with an internal locus of control tend to accomplish learning development activities (Rotter, 1966; Noe, 1986; Steensma & Groeneveld, 2010).

2. Self-Efficacy and Training Effectiveness

The beta weight of self-efficacy was $\beta = 0.260$ which indicates a strong relationship with training effectiveness. Self-efficacy is a significant component of the learning perspective. In many dimensions, self-efficacy includes personal beliefs. In particular, abilities and capabilities that affect cognitive learning outcomes affect self-efficacy in training and development (Elnaga & Imran, 2013). As a result, the positive relationship of self-efficacy and training effectiveness indicate the ability of the right people who have high self-efficacy to participate in training and development. Furthermore, individuals with a high degree of self-efficacy tend to acquire new knowledge and skills acquisition through training and development activities (Smith, 1989; Lunenburg, 2011).

The overall results reveal individual context in multidimensions. This current research affirms individual context in different environments. However, locus of control and self-efficacy demonstrate different outcomes in the context of life experience and environment (Smith, 1989). The worthwhile of research outcomes can be demonstrated in learning and development activity. Furthermore, internal locus of control and self-efficacy can be



implemented widely in energetic organization. This confirms that internal locus of control and self-efficacy influence training effectiveness in an Asian context.

Conclusion and Implications

The research confirms that internal locus of control and self-efficacy are positive predictors of training effectiveness in the selected service industries (World Economic Forum, 2018b; Thailand Professional Qualification Institute (Public Organization), 2019). From a theoretical point of view, the particular confirmatory model for training effectiveness is supported by social cognitive theory in an Asian context (Bandura, 1986). Moreover, the results present self-efficacy and internal locus of control, respectively. Self-efficacy plays significant roles in coping skill of training. A stronger degree of personal beliefs, a stronger degree to attain the goal of a training program. The internal locus of control drives employees to have strong intention to complete the goal. The goal of a training program will be accordingly achieved. In Thailand, internal locus of control and self-efficacy are essential individual characteristics that determine the effectiveness of employee's learning and development activities. Internal locus of control significantly yields better outcomes in knowledge acquisition. Employees with a strong internal locus of control believe in their abilities and invest time and money in enhancing their capabilities (Steensma & Groeneveld, 2010). Furthermore, self-efficacy represents one's own capability in certain situations (Bandura, 1982; Bandura, 1986; Lunenburg, 2011). From a social learning perspective, self-efficacy allows an employee to deal with tasks in different situations. The association of internal locus of control and self-efficacy can strongly determine the anticipated outcomes. Thus, training effectiveness will a positive outcome.

1. Managerial Implications

Training and development are part of the human development process (World Economic Forum, 2018a) and critical in the development of organizational activities. This is a highlight of human development process (Schwab, 2016). In addition, the investment in human capital can be enhanced with prior employee selection as the right learning-oriented employees with internal locus of control can be selected. Employees with a strong determination to improve their knowledge and skills will appreciate the training and development opportunities (Maurer & Lippstreu, 2008; Steensma & Groeneveld, 2010). Moreover, it is good to promote career planning by offering training opportunities as employees who believe in their abilities and capabilities will positively respond to training and development activities.

2. Future Research

According to Tantanawat (2019), training and development have a positive association to perceived job performance in real estate and relevant industries. Therefore, it is advisable to examine an Asian context in the in-depth analysis of training effectiveness, and this current research could be extended as empirical research with theoretical support. Moreover, as the study aimed to confirm the positive impact of internal locus of control and self-efficacy on training effectiveness in particular industries in Thailand, the conceptualized model can be applied in various industries in the country. More generalization will fulfill in training effectiveness field. Other individual characteristics probably affect training effectiveness research such as attitude and personal traits. Future research can study these in more detail. With regard to the impact of internal locus of control and self-efficacy on training effectiveness, it is interesting to study further relationship on these factors in different dimensions.



References

- Bandura, A. (1982). Self-Efficacy Mechanism in Human Agency. *American Psychologist*, 37(2), 122-147.
- Bandura, A. (1986). *Social Foundations of Thought and Action: A Social Cognitive*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1989). Human Agency in Social Cognitive Theory. *American Psychologist*, 44(9), 1175-1184.
- Bandura, A., & Schunk, D. H. (1981). Cultivating Competence, Self-Efficacy, and Intrinsic Interest through Proximal Self-Motivation. *Journal of Personality and Social Psychology*, 41(3), 586-598.
- Bouffard-Bouchard, T. (1990). Influence of Self-Efficacy on Performance in a Cognitive Task. *The Journal of Social Psychology*, 130(3), 353-363. DOI: 10.1080/00224545.1990.9924591
- Brown, J. (2002). Training Needs Assessment: A Must for Developing an Effective Training Program. *Public Personnel Management*, 31(4), 569-578. DOI: 10.1177/009102600203100412
- Chiaburu, D. S., & Tekleab, A. G. (2005). Individual and Contextual Influences on Multiple Dimensions of Training Effectiveness. *Journal of European Industrial Training*, 29(8), 604-626. DOI: 10.1108/03090590510627085
- Elnaga, A., & Imran, A. (2013). The Effect of Training on Employee Performance. *European Journal of Business and Management*, 5(4), 137-147.
- Facteau, J. D., Dobbins, G. H., Russell, J. E. A., Ladd, R. T., & Kudisch, J. D. (1995). The Influence of General Perceptions of the Training Environment on Pretraining Motivation and Perceived Training Transfer. *Journal of Management*, 21(1), 1-25. DOI: 10.1016/0149-2063(95)90031-4
- Fitzgerald, W. (1992). Training Versus Development. *Training & Development*, 46(5), 81-84.
- Ho, R. (2013). *Handbook of Univariate and Multivariate Data Analysis with IBM SPSS* (2nd ed.). FL: Chapman and Hall/CRC.
- Jehanzeb, K., & Bashir, N. A. (2013). Training & Development Program and its Benefits to Employee and Organization: A Conceptual Study. *European Journal of Business and Management*, 5(2), 243-252.
- Lado, A. A., & Wilson, M. C. (1994). Human Resource Systems and Sustained Competitive Advantage: A Competency-Based Perspective. *Academy of Management Review*, 19(4), 699-727.
- Lunenburg, F. C. (2011). Self-Efficacy in the Workplace: Implications for Motivation and Performance. *International Journal of Management, Business, and Administration*, 14(1), 1-6.
- Maddux, J. E. (2002). Self-Efficacy: The Power of Believing you can. In C. R. Snyder, & S. J. Lopez (Eds.), *Handbook of Positive Psychology* (pp. 277-287). Oxford: Oxford University Press.



Mathieu, J. E., Tannenbaum, S. I., & Salas, E. (1992). Influences of Individual and Situational Characteristics on Measures of Training Effectiveness. *Academy of Management Journal*, 35(4), 828–847. DOI: 10.2307/256317

Maurer, T. J., & Lippstreu, M. (2008). Who will be Committed to an Organization that Provides Support for Employee Development? *Journal of Management Development*, 27(3), 328–347. DOI: 10.1108/02621710810858632

Noe, R. A. (1986). Trainees' Attributes and Attitudes: Neglected Influences on Training Effectiveness. *Academy of Management Review*, 11(4), 736–749. DOI: 10.2307/258393

Rotter, J. B. (1966). Generalized Expectancies for Internal Versus External Control of Reinforcement. *Psychological Monographs: General and Applied*, 80(1), 1–28. DOI: 10.1037/h0092976

Schwab, K. (2016, January 14). *The Fourth Industrial Revolution: What it Means, How to Respond*. Retrieved from <https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/>

Sherer, M., Maddux, J. E., Mercandante, B., Prentice-Dunn, S., Jacobs, B., & Rogers, R. W. (1982). The Self-Efficacy Scale: Construction and Validation. *Psychological Reports*, 51(2), 663–671. DOI: 10.2466/pr0.1982.51.2.663

Smith, R. E. (1989). Effects of Coping Skills Training on Generalized Self-Efficacy and Locus of Control. *Journal of Personality and Social Psychology*, 56(2), 228–233. DOI: 10.1037/0022-3514.56.2.228

Steensma, H., & Groeneveld, K. (2010). Evaluating a Training Using the “Four Levels Model”. *Journal of Workplace Learning*, 22(5), 319–331. DOI: 10.1108/13665621011053226

Tantanawat, S. (2019). A Comparison of Perceived Job Performance Predictors for Different Employment Mode Employees in Facility Management. In *25th Annual Pacific-Rim Real Estate Society Conference, Melbourne, Australia, 14-16 January 2019*. Australia: Melbourne School of Design, University of Melbourne. Retrieved from http://www.prrs.net/papers/Tantanawat_Comparison_of_perceived_job_performance%20.pdf

Thailand Professional Qualification Institute (Public Organization). (2019). *Industry Cluster*. Retrieved from <http://tpqi-net.tpqi.go.th/home/Occ/group/SERVICE>

World Economic Forum. (2018a). *Insight Report: The Future of Jobs Report 2018*. Geneva, Switzerland: World Economic Forum. Retrieved from http://www3.weforum.org/docs/WEF_Future_of_Jobs_2018.pdf

World Economic Forum. (2018b). *Shaping the Future of Construction: An Action Plan to Solve the Industry's Talent Gap*. Geneva, Switzerland: World Economic Forum. Retrieved from http://www3.weforum.org/docs/WEF_Future_of_Jobs_2018.pdf