JOURNAL OF INTERNATIONAL ACADEMIC RESEARCH FOR MULTIDISCIPLINARY
Impact Factor 4.483, ISSN: 2320-5083, Volume 6, Issue 5, June 2018

EVALUATING TRAINING EFFECTIVENESS BY UNDERSTANDING OIL PALM INDEPENDENT SMALLHOLDER'S ATTITUDE TOWARDS TRAINING

ZULKIFLI ABDUL MANAF[1]
HUMAIRA, M. T.[1]
ZAKI AMAN[1]
PROF. MADYA DR. ABDUL RAHMAN ABDUL RAHIM[2]
DR. NORASHIKIN, H.[3]
DAYANGNAILUL, M. A. A[3]

[1]Malaysian Palm Oil Board (MPOB), Bangi, Selangor, Malaysia
[2]Arshad AyubGraduate Business School, University TeknologiMARA, Shah Alam, Selangor, Malaysia
[3]Faculty of Business and Management, University Teknologi MARA, Shah Alam, Selangor, Malaysia

Abstract

The purpose of this study was to determine if the relationship between trainees' attitude towards training and training effectiveness. Measurements for this study was adopted from Noe (1986). Data were collected from oil palm independent stallholder's farmers who attended a one-day seminar organized by a government agency. The research model was analyzed using PLS technique using Smart PLS 3.0. Trainee's attitudes such as consciousness, self-efficacy, learning goal orientation, motivation to learn, transfer motivation, training awareness and intention to use was empirically demonstrated to be significant predictor for training effectiveness. The result from this study confirmed that trainee's attitude conceptualized in terms of evaluation of development experience, social status and perceived training benefits demonstrated a significant influence on training effectiveness. Limitation of the study and suggestion for future research was also highlighted.

Introduction

Training is an integral part of human resource development. It has been seen as a mean of fostering the growth and development of an individual as well as organizations. Generally, training is an organized and planned activity in which people learn knowledge and skills for a definite purpose that will change their behaviour. Noe (2016) conceptualized training as a planned effort by an organization to facilitate individuals' learning of job-related competencies either knowledge, skills, and behaviours that are critical for successful job performance. Kirk Patrick (1967) and Noe (2012) argued that the bottom line for training program is effectiveness, but limited attention has been given for understanding why training programs are effective for some participants and ineffective for others. Various studies have been carried out focusing the influence of employee cognitive ability, motivation and

concentration, education level, occupation and experience with information technology on training effectiveness (Yueh, Chin and Lin, 2013; Alvelos and Ferreira, 2015; Carretta, Ree and Teachout, 2016).

Training effectiveness refers to the extent to which an activity fulfils its intended purpose. When an individual has been trained, the training effectiveness is likely to be followed by job behavior or it relate to economics outcomes (Mayfield, 2011; West, 1999). The empirical evidences demonstrated that training effectiveness has a positive relationship between customer, employee and shareholder satisfaction (Garcia, 2005), job satisfaction, organizational commitment and employee motivation (SahinidisandBouris, 2008). Training effectiveness will also lead to job site safety improvements helping to promote healthy and safer working environment (Harrington *et al.,* 2009).

On how training effectiveness will be measured, various predictors have been used following evaluation by Kirkpatrick (1959)which was later adopted by other researchers (Kodwani, 2017; Santos and Stuart, 2003; Mathieu*et al*., 1992;Tai 2006). Among the indicators are related to perceived transfer of training (Kodwani, 2017; Santos and Stuart, 2003), post-training behaviour (Mathieu*et al.,*1992), perceived training benefits, continuance intention to use (Ramayah*et al.,*2011), learning performance (Tai, 2006), individual performance (Tziner, *et. al.,* 2007), and organizational performance (Chiaburu&Tekleab, 2005), job performance (Noe & Schmitt, 2006) and overall training effectiveness (Siti Fardaniah, 2013).

In this study, we examine independent oil palm smallholder farmers who are not an employee but are directly related to a government agency that are responsible for the growth, development and innovation related to the palm oil industry. The oil palm independent smallholder farmers have great roles in palm oil industry as they accounted for 40% from the total 5.74 million hectares oil palm planted area in Malaysia (MPOB, 2016). Being the third largest industry of Malaysia and as the second world largest producer after Indonesia, the government intervention through training is vital. Thus, providing effective and efficient training is critical as to enhance their capacity for implementing good agricultural practices in which lead to increase yield production, income and better living standard.

The aims of this study are to investigate the relationship between the attitude of independent smallholder farmers toward training effectiveness. There are five main dimensions of attitudes were evaluated, which are perceived training benefits, social

constraints, evaluation of development experience, understanding of development needs and social support.

Materials and Methods

Localities and sampling population

In this study, data was collected from three states in Malaysianamely, Johor, Sabah and Perak. Respondents are independent palm oil smallholder farmers who have attended training programs on harvesting, application of fertilizers and pest and diseases control between 2013 and 2015. Data was collected in February 2017 while they are attended a one-day seminar organized by the Malaysian Palm Oil Board (MPOB).

A total of 160 farmers voluntary participated in this survey. Number of sample was calculated based on Krejie and Morgan (1970).

Data collection

Data was collected using questionnaire which comprising three sections. Respondents were face to face interviewed and asked to indicate their agreement or disagreement on a 5-point Likert scale ranging from1 = strongly disagree to 5 = strongly agree. The Section A was on demographic information, Section B on training effectiveness and Section Con farmer attitudes. The items used to measure training effectiveness and farmer attitudes were adopted from Noe (1986). Trainees attitude were conceptualized into five dimensions namely, perceived training benefits, social support, social constraints, evaluation of development experience and understanding of development needs. Perceived training benefits was measured using six items. Sample items included “participation in training help to increase productivity” and “participation in training help to perform job better”. Social constraint was measured using two items. Respondents were asked is their workload tends to make it difficult to try and use new knowledge and make it difficult for them to participate in training and development activities. Meanwhile, social support was measured using four items. Sample items include “take parts in training program help me build a good relationship with other smallholder” and “training course is design based on smallholders’ requirement and to assist them to increase yield”. Then, understanding of development needs was measured by five items which include “I usually understand why I am asked to attend training programs with MPOB and the performance appraisal information I receive is valuable for my personal development”. Another measurement for evaluation of development experience involve three

items including "training programs conducted by MPOB are worthwhile, I am always being inform regarding training activities held by MPOB and attending training is my priority".

Result

Demographic data

From the demographic data, male respondents constituted 86.1% and female 13.3%. Most of the respondents were those who are in the age group of 51 - 65 years old with household income between RM951 and RM1,999 (37.0%). There are 32 smallholder farmers with the household income more than RM3,861 per month (19.4%). In term of smallholder's status and ethnic, majority of them are fulltime smallholder farmers (57.0%) and Malay (64.2%). In this study, 53.9% respondents have attained secondary school followed by primary school of 23.6%, college or university of 17.6% and only 4.8% with no formal education.

Measurement model analysis

To analyse the data, this study use SmartPLS which is non-parametric analysis software. Since the data collected is not multivariate normal, Partial Least Squares (PLS) technique using Smart PLS 3.0 software were used to analyse the research model (Ringle, Wende & Becker, 2015).

Two elements, namely convergent validity and discriminant validity were used to assess the measurement model. The convergent validity of the measurement is ascertained by examining the composite validity, loadings, average variance extracted (AVE) (Hair *et al,* 2017; Ramayah*et al.,* 2017). As demonstrated in Table 1, the loadings were all higher than 0.7, all composite reliabilities were above 0.7 and the AVE value were also higher than 0.5 that reflect the model if fit for structural model assessment (Hair *et al.,* 2017).

Table 1: Measurement of construct validity associated with training effectiveness

Constructs	Items	Loading	Composite Reliability	AVE
Evaluation of development experience (DE)	DE1	0.803	0.861	0.674
	DE2	0.808		
	DE3	0.776		
Training Benefits (TB)	TB1	0.771	0.899	0.598
	TB2	0.798		
	TB3	0.810		
	TB4	0.819		

	TB5	0.708		
	TB6	0.726		
Understanding of development needs (DN)	DN1	0.820	0.891	0.622
	DN2	0.833		
	DN3	0.786		
	DN4	0.775		
	DN5	0.724		
Situational constraints (SC)	SC1	0.778	0.829	0.709
	SC2	0.901		
Social support (SS)	SS1	0.771	0.844	0.578
	SS2	0.756		
	SS3	0.729		
	SS4	0.775		
Training Effectiveness (TE)	TE1	0.707	0.904	0.575
	TE2	0.800		
	TE3	0.765		
	TE4	0.825		
	TE5	0.768		
	TE6	0.725		
	TE7	0.705		

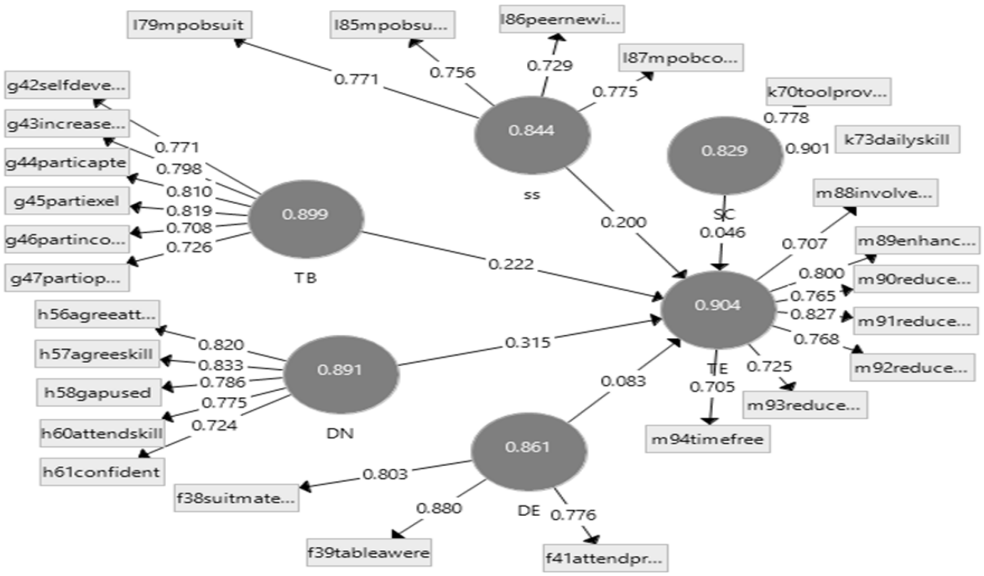
For the purpose of examining discriminant validity, Fornell-Larcker (1981) criterion was used (Hair *et al.,* 2017). However, Henseler*et al.*, (2015) argued that Fornell-Larcker criterion is not reliable to detect the lack discriminant validity and suggested to assess discriminant validity in the form of heterotrait- monotrait ratio (HTMT) of correlations. Hair *et al.,* (2015) further conceptualized that the HTMT approach is an estimate of what the true correlation between the two constructs would be, if they were perfectly measured. A correlation between the two constructs close to 1 indicates a lack of discriminant validity. However, Kline (2011) argued that if the HTMT value is above 0.85, the there is a problem of discriminant validity. From Table 2, it was demonstrated that all values shown are less than 0.85 indicating compliance to Kline (2011) principle.

Table 2: Analysis of Discriminant Validity (HTMTratio) between constructs

	1	2	3	4	5	6
1. Evaluation of development experience	1.00					
2. Understanding of development needs	0.739	1.00				
3. Situational constraints	0.829	0.563	1.00			
4. Training Benefits	0.749	0.735	0.531	1.00		
5. Training Effectiveness	0.751	0.737	0.817	0.676	1.00	
6. Social support	0.685	0.684	0.757	0.541	0.741	1.00

Hypothesis Testing

The structural model of the study was assessed by looking at the R2 value, beta (β) and the corresponding t-values via bootstrapping procedure with a resample of 5,000 as suggested by Hair *et al.,* 2017. In addition, the Q2 value to indicate the path model's predictive relevance for the dependent construct was also measured. Figure 1 demonstrated the bootstrapping results.



Note. TB = Training Benefits; DN = Understanding of development needs; DE = Evaluation of development experience; SC = Situational constraints; SS = Social support; TE = Training Effectiveness

Fig. 1: Bootstrapping result showing the relationship between attitude and training effectiveness

Meanwhile, Table 3 summarizes the result of the hypotheses testing. As suggested, this study has included the Q2 value and confidence intervals as part of reporting. It was demonstrated that H1 and H3 was not supported where development experience and social status does not demonstrate significant relationship with training effectiveness. However, understanding development need (β = 0.315, t = 3.16, p = 0.01), perceived training benefits (β = 0.222, t = 2.227, P=0.01) and perceived social support (β = 0.20, t = 2.144, P=0.01) positively influence training effectiveness. This gives support for H2, H4 and H5. Next we look at the predictive relevance (Q2) value. The Q2 value is 0.272 suggest that the model has predictive relevance for the dependent variable.

Table 3: Relationship between construct associated with farmer attitudes and training effectiveness

Ho	Relationship	Std. Beta	Std. error	t-value	Decision	VIF	R2	Q2
H1	DE-TE	0.08	0.12	0.69	Not Supported	2.21		
H2	DN-TE	0.31	0.10	3.16 **	Supported	2.42		
H3	SC-TE	0.04	0.04	0.62	Not Supported	1.46	0.52	0.272
H4	TB-TE	0.22	0.21	2.22 **	Supported	1.96		
H5	SS-TE	0.20	0.20	2.14 **	Supported	2.07		

Discussion

Training effectiveness in this study is seen as the essence of developing quality human resource for good agricultural practices. In this study training benefits, understanding of development needs, social support and training effectiveness shows significant relationship with training effectiveness. Other constructs which are evaluation of development experience; ($\beta = 0.08$, $P>0.01$) and social constraint ($\beta = 0.04$, $P > 0.01$) did not demonstrate significant relationship with training effectiveness of oil palm independent farmers.

In study demonstrated evidences that understanding of farmer attitude towards training is critical as it do have an impact on training effectiveness. Perceived training benefits demonstrated a positive and significant relationship with training effectiveness ($ß = 0.22$, $P < 0.01$). This is in line with the expectancy theory (Vroom, 1964), where trainees have expectation and believe that their effort invested for attending a training program will result in mastery of the training content and will lead to better agricultural practices. This finding is also congruent with Pallai and Gregor (2016) that revealed training effectiveness would be high if the trainees are aware of the purpose and benefits of the training through their positive change in attitude and behaviour.

To understand their development needs, farmers need to assess themselves to know their strength, weakness and interest with regards to their agricultural best practices. The farmers believe that the opportunity to conquer the weaknesses and for better household income through better agricultural practices can be overcome through training. Such believes

enhance their motivation to learn which are congruent to their career. Moreover, this study found support on the positive and significant relationship between trainees' attitude in terms of evaluation of development experience and training effectiveness (ß = 0.31, P<0.01). Findings of this study also demonstrated a positive and significant relationship between social support and training effectiveness (ß = 0.20, P< 0.01).

This finding suggest that a training would be effective if the palm oil independent smallholders' farmers perceived that they get supports from their family members, others farmers, and the respective authorities in which they believe that the others care about their agricultural best practices and demonstrated this care by providing social interaction and resources. As supported by De Rijdt*et al.*, (2013), training would be effective if there is a strong social support practices in the work environment.

Ironically, findings of this study do not able to prove the role of 'evaluation of development experience' and 'situational constraints' in influencing training effectiveness. The possible explanation is that farmers may view these as important attributes of their attitudes and it must be in him/her. The respondents may not clear on training that related to their job. This is in line with those reported by Baksh*et al.,* (2015), although respondents were contented with the training they still need some time to adapt with the knowledge and skills taught. Specifically, constraints like financial resources and lack of equipment do not influence training output (Truitt, 2011). However, existence of this attitude will not influence their motivation but inexistence of it may negatively influence their motivation. This finding accords with Herzberg (1959) conceptualizing of motivation.

Conclusion

This research has identified three predictors, which are understanding of development needs, social status and perceived training benefits that can affect training effectiveness. These results have several possible implications for enhancing training effectiveness organized for the palm oil independent smallholders. Enrolling the farmers to attend training program in a non-supportive environment may waste the training investment. Attention must be given by the training provider on the element of social support and perceived training benefits. In other words, a good interaction and communication systems are need for the farmers to know and choose a program that fulfills their expectation. As such designing of a training content becomes critical and to involve the farmers in the process of designing the training program content is vital. A good interaction between the training services providers

would also help the farmers to understand their strength and weakness with regards to good agricultural practices which may specify why they should attend a training program. Our analysis of the trainees' attitude towards training has helped tounderstand on the range of factors that influence training effectiveness. More research is needed on the complex questions of training effectiveness, particularly in term of the role of the government agency (training provider) and it's dynamic by which training translate into positive outcomes for the government agency. Such research would need to study the financial and productivity benefits as well as long term benefits for the government agency and the farmer's household income.

Acknowledgment

This study was funded by the Malaysian Palm Oil Board and collaboration with Arshad Ayub Graduate Business School (AAGBS), University Teknologi MARA, Malaysia.

References

1. Alam, A. S. A. F. , Er, A. C., &Begum, H. (2005). Malaysian oil palm industry: Prospect and problem. *Journal of Food, Agriculture & Environment,* 13 (2), 143-148.
2. Abd Rahman, A., Siew, I. N., Murali, S., &Florence, W. (2013).Training and organizational effectiveness: moderating role of knowledge management process, *European Journal of Training & Development,*37 (5), 472-488.
3. Alvelos, R. A., &Ferreira, R. B, (2015). The mediating role of social support in the evaluation of training effectiveness. *European Journal of Training & Development*, 39(6), 484 – 503.
4. Bakshi, A. J., Gandhi, H. N., Shah, R., &Maru, K (2011). Influences on Career Choices as Perceived by Youth in Mumbai. *Indian Journal of Career and Livelihood Planning Journal of the Indian Association for Career and Livelihood Planning (IACLP),* 1 (1).
5. Blume, B. D., Ford, K. J., Baldwin, T. T., &Huang, J. L (2010). Transfer of Training: A Meta-Analytic Review. *Journal of Management,* 36 (4), 1065-1105.
6. Bramley P. (1991). Evaluating Training Effectiveness. UK: Mc Graw-Hill.
7. Caretta, T.R., Ree, M. J., &Teachout, M.S. (2016).Training affects variability in training performance both within and across jobs. *International Journal of Selection and Assessment,* 24 (1), 71-76.
8. Chiaburu, D.S. and Tekleab, A.G. (2005). Individual and contextual influences on multiple dimensions of training effectiveness. *Journal of European Industrial Training*, 29 (8), 604-26.
9. Fornell, C.,&Larcker, D.F., (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18 (1), 39-50.
10. García, M. 2005. Training and business performance: The Spanish case. *International Journal of Human Resource Management,*16 (9),1691-1710.
11. Hair, J. F., Thomas, G., Hult, M., Ringle, C. M., &Sarstedt, M. (2017). A Primer on Partial Least Squares Structural Equation Modeling (2nd ed.). Thousand Oakes, CA: Sage.
12. Harrington, D., Materna,B., Vannoy, J., &Scholz, P. (2009). Conducting effective tailgate trainings Health. *Prom. Pract.,* 10 (3), 359–369.
13. Henseler, J., Ringle, C. M., &Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43 (1), 115-135.
14. Huang, J. L., Ryan, A. M., Zabel, K. L., &Palmer, A. (2014). Personality and adaptive performance at work: A meta-analytic investigation. *Journal of Applied Psychology,* 99, 162–179.
15. Kirkpatrick D. L. (1967). Evaluation of training.Training and development handbook, 87-112). New York, NY: McGraw-Hill.
16. Kline, R. B. (2011). Principles and practice of structural equation modeling. New York: Guilford Press.
17. Kodwani, A. D. (2017). Decoding training effectiveness: the role of organisational factors. *Journal of Workplace Learning*, 29 (3), 200-216.

18. 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, 828-847.
19. Mayfield, M. (2011). Creating training and development programs: using the ADDIE method. *Development and Learning in Organizations: An International Journal*, 25 (3), 19-22.
20. McGuire, D. (2014). Human Resource Development (2nd edition). Sage.
21. Naber, A.M., McDonald, J. N., Asenuga, O.A.,& Arthur, W. Jr. (2015).Team Members' Interaction Anxiety and Team-Training Effectiveness A Catastrophic Relationship?. *Journal of Human Factor* 57(1), 163 –176.
22. Narang, R.,& Mahmood, A. (2011). A Study on Perception of Trainers regarding Effectiveness of Training Programmes in Banking Sector. *Asia Pacific Business Review*, 7(1), 183-190.
23. Noe, R. A. (2012). Employee Training and Development. 6th ed. Boston: McGraw-Hill.
24. Noe, R. A. (Retrieved on 2016). The Influence of Trainee Attitudes on Training Effectiveness: Test of a Model. *Personnel Psychology,* 39.
25. Pallai, K.,& Gregor, A. (2016). Assessment of effectiveness of public integrity training workshops for civil servants – A case study. *Teaching Public Administration,* 34(3), 247-269.
26. Rahman, A., Abdullah, R., Shariff, F. M., &Simeh, M. A. (2008). The Malaysian palm oil supply chain: The role of the independent smallholder. *Oil Palm Industry Economic Journal,* 8(2), 17-27.
27. Ramayah, T., Ahmad, N. H., & Hong, T. S. (2012). An Assessment of E-training Effectiveness in Multinational Companies in Malaysia. *Educational Technology & Society*, *15*(2), 125–137.
28. Ramayah, T., Yeap, J. A. L., Noor Hazlina, A., Hasliza, A.H., &Rahman, S. A. (2017). Testing a Confirmatory model of Facebook Usage in SmartPLS using Consistent PLS. *International Journal of Business and Innovation,* 3(2), 01-14.
29. Ramayah, T., Noor Hazlina, A.,& Hong, T. S. (2011). An Assessment of E-training Effectiveness in Multinational Companies in Malaysia. *Educational Technology & Society,* 15(2), 125 –137.
30. Ringle, C.M., Wende, S., & Becker, J.-M. (2015). SmartPLS 3, www.smartpls.com.
31. Sadri G.,& Snyder P.J.(1995). Methodological Issues in Assessing Training Effectiveness. *Journal of Managerial Psychology,*10(4), 30 –33.
32. Santos, A.,& Stuart, M. (2003). Employee perceptions and their influence on training effectiveness. *Human Resource Management Journal,* 13(1), 27–45.
33. Sahinidis, A.G.,&Bouris, J. (2008). Technological Education Institute, Athens, Greece Employee perceived training effectiveness relationship to employee attitudes. *Journal of European Industrial Training,* 32(1), 63-76.
34. Siti Fardaniah, A. A. (2013). Measuring Training Effectiveness: Evidence from Malaysia. Handbook on the Economic, Finance and Management Outlook.
35. Tai, W.T. (2006), Effects of training framing general self-efficacy and training motivation on trainees' training effectiveness. *Personnel Review* 35(1), 51-65.
36. Truitt, D. L. (2011). The Effect of Training and Development on Employee Attitude as it Relates to Training and Work Proficiency.SAGE Publications.
37. Tziner, A., Fisher, M., Senior, T.,& Weisberg. J (2007).Effects of Trainee Characteristics on Training Effectiveness. *International Journal of Selection and Assessment,* 15(2), 167-174.
38. Vroom, V. H. (1964). Work and motivation. New York: Wiley.
39. West, A. (1999). Vocational education and training indicators project EU priorities and objectives related to VET, European Commission, European Centre for the Development of Vocational Training.
40. Werner, J.M.,& DeSimone, R.L. (2012). Human Resource Development.6nd ed. USA: Thomson South-Western.
41. Werner, J. M. (2016). Publication Ethics and HRDQ: Holding Ourselves Accountable. *Human Resource Development Quarterly,* 27: 317–319.