

# Individual Characteristics Influencing Online Training Motivation: Sampling from Malaysian Youth attending Volunteerism Online Training

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## Abstract

Training motivation is proven to be the most important factor affecting training effectiveness especially in employees' training. Hence, previous researchers have investigated individual characteristics influencing training motivation to predict training effectiveness; in which, individual characteristics are prioritized in selecting the right trainees to predict training effectiveness in face-to-face training. However, limited research was done to determine individual characteristics influencing online training motivation, especially those that involve training for youths to improve their volunteerism knowledge and attitude in online training. Therefore, the purpose of this research is to determine individual characteristics influencing online training motivation related to volunteerism among youth. The Volunteerism Online Training Program was offered as open participation among Malaysian youths aged between 18 to 30 years old; in which, a total of 52 youths were involved in this online training and became the subjects of pre-experimental research design. Findings indicated that several individual characteristics were significantly influencing online training motivation including intrinsic orientation, extrinsic orientation, and volunteer commitment; however self-efficacy was not a significant predictor. All of these individual characteristics also explained 87.3% variance in online training motivation; in which, the online training was also proven effective. This implies that intrinsic orientation, extrinsic orientation, and volunteer commitment that are related to the content of online training are important individual characteristics that determine trainees' online training motivation. Research implications, limitations, suggestions, and future research are also discussed.

**Keywords:** Online Training Motivation, Malaysian Youth, Training Effectiveness, Human Resource Development, Human Development, Volunteerism, Pre-Experiment

**Introduction**

Nowadays, training programs are organized not only for employees but also other types of participants including school student, youth, adolescent, and non-working individual in the community due to the rise of training importance's awareness (Aziz & Selamat, 2018). Since pandemic COVID-19, the organization of online training programs have also risen (Aziz, Hussein, Husin, & Ibrahim, 2022). Hence, research related to training effectiveness have also evolved into online training effectiveness among various types of training participants (Shukla, Dash, & Kumar, 2024; Aziz & Rosly, 2025). Interestingly, most researchers found that training motivation not only proved to be the most important factor affecting training effectiveness in face-to-face training but also in online training (Lim, Lee & Nam, 2007; O'Neill, 2025).

Determining individual characteristics influencing training motivation and effectiveness is important because it can be used to prioritize and select the right candidates for training to ensure training effectiveness (Aziz, Noah, Samah, Ahmad & Abiddin, 2011; Davies, Moos & Vuuren, 2023). Several individual characteristics were found to be important factors influencing training motivation and effectiveness in face-to-face training with moderate to high effect size (e.g., Aziz, 2018a). However, these important factors were not researched yet in online training involving various types of trainees, especially among youth participants in volunteerism training. Hence, individual characteristics affecting volunteerism online training should be investigated further; this is because volunteerism among youth is very important as it will stimulate them to have higher life motivation, academic achievement, and self-esteem (Johnson, Beebe, Mortimer & Snyder, 1998; Rais, Lian & Yacob, 2021).

Therefore, the purpose of this current research is to study individual characteristics influencing online training motivation in an effective online training related to volunteerism among youths in Malaysia. This is because volunteerism among youths in Malaysia is needed as an important aspect to empower human development in Malaysia (Suandi, 1991; Rais et al., 2023).

**Literature Review**

Individual characteristics were found to be important factors affecting training motivation and effectiveness by previous researchers (e.g., Aziz, 2018a; Ibrahim, Zin, & Vengdasamy, 2020). According to the Theory of Training Motivation by Colquitt, LePine, and Noe (2000), there are several factors affecting training effectiveness; in which, training motivation was proven to be the most important factor that mediated the relationship between various independent variables and training effectiveness. The theory also highlights the importance of individual characteristics that influence training motivation; in which, these characteristics can be used to understand and distinguish trainees that are motivated and unmotivated for training in order to select the right candidate to ensure training effectiveness especially for those expensive training (Aziz, 2018a). Hence, research related to individual characteristics affecting training motivation and effectiveness has increased by years.

Interestingly, recent researchers have started to investigate factors affecting online training motivation and effectiveness including learner or individual characteristics (Shukla et al., 2024; O'Neill, 2025). This is because the online training was organized frequently across different types and ages of trainees since pandemic COVID-19, such as among employees,

school students, undergraduates and graduates, and various communities (Aziz et al., 2022). However, although research was done to study the effectiveness of online training programs related to volunteerism, factors affecting online training related to volunteerism are limited. For example, Hill, Langley, Kervin, Pesut, Duggleby and Warner (2021) did a study to understand the feasibility and acceptability of online training for adult volunteers; however, individual characteristics influencing the online training motivation and effectiveness among youths have received little attention. Hence, individual characteristics influencing online training motivation related to volunteerism among youths should be investigated further.

On the other hand, it is important to determine whether the online training is effective; this is to make sure individual characteristics influencing online training motivation are studied in an effective online training. According to Kirkpatrick and Kirkpatrick (2010) and Noe (2023), training is considered as effective if the training objective is achieved. Hence, to determine the effectiveness of online training related to volunteerism, trainees' learning regarding the training objective achievement should be assessed before and after the completion of training; in which, Kirkpatrick and Kirkpatrick (2010) and Noe (2023) explain that higher post-score of learning assessment will prove the training effectiveness. Interestingly, Stehle, Spinath and Kadmon (2012) found that there is no significant difference between data collected using perception and test to measure learners' performance; this implies that learning performance to prove that the training objective was achieved or to determine training effectiveness can also be assessed using trainees' perception of their learning. Therefore, an alternative hypothesis is constructed to be tested as:

Ha1 = Trainees' post-perception of acquired knowledge and attitude towards volunteerism is significantly higher than their pre-perception in an online training related to volunteerism at 0.05 level of significance.

Further, according to Colquitt et al. (2000), there are several individual characteristics affecting training motivation and effectiveness in face-to-face training including self-efficacy, valence (intrinsic and extrinsic motives), job involvement, personality (locus of control, consciousness, anxiety), and demographic variables (age). However, Aziz (2018a) explains that only several individual characteristics have consistent significant effect on training motivation and effectiveness across different types of training (training that provide separate outcomes, such as cognitive, skills or affective outcome), type of trainees (such as employees, entrepreneurs, community, adolescent, etc.), content of training (such as difficult or easy to learn the content), etc. The individual characteristics demonstrated by Aziz (2018a) are self-efficacy, intrinsic orientation, extrinsic orientation, and content commitment (for example, if the training is related to work, job-commitment becomes an important individual characteristic). Hence, the effect of these individual characteristics on online training motivation related to volunteerism among youths should be investigated further.

"Self-efficacy is defined as self-perceived competence on the task or an individual's belief in his/her capabilities to organize and execute the courses of action required to produce given attainments" (Aziz et al., 2011, p.11). Using systematic literature review, self-efficacy was found to be an individual characteristic affecting employees' online training motivation and effectiveness by O'Neill (2025). Consistently, Hongsuchon, Emary, Hariguna and Qhal (2022) used samples among students in several universities that enrolled in online education and also found that self-efficacy influenced students' learning motivation and effectiveness. In

fact, self-efficacy was also found to affect training motivation and effectiveness in face-to-face training by previous researchers, such as research by Ibrahim, Zin, and Vengdasamy (2020) that used samples among employees in a Malaysian Bank. Therefore, self-efficacy can also be predicted to influence youth's online training motivation; hence, an alternative hypothesis is constructed to be tested as follow:

Ha2 = Self-efficacy is a significant factor influencing online training motivation among youths attending an online training related to volunteerism at 0.05 level of significance.

Further, "intrinsic orientation refers to the extent to which training meets the internal interest of trainees, such as opportunities for personal growth and development, or skill and knowledge improvement" (Aziz et al., 2011, p.10). Intrinsic orientation was found to be an individual characteristic affecting learning motivation and effectiveness in online learning by most of previous researchers, such as by Zhou and Zhang (2024). Intrinsic orientation was also found to affect training motivation and effectiveness in face-to-face training by previous researchers, such as research by Mohamad and Rahman (2023) that used samples among public servants in the Malaysian government sector. However, the influence of intrinsic orientation on online training motivation was vague and should be tested further. Therefore, an alternative hypothesis is constructed to be tested as follow:

Ha3 = Intrinsic orientation is a significant factor influencing online training motivation among youths attending an online training related to volunteerism at 0.05 level of significance.

Furthermore, "extrinsic orientation refers to the extent to which a trainee is interested in tangible external rewards", such as promotions, pay, networking, and higher performance evaluations" (Aziz et al., 2011, p.10). Like intrinsic orientation, extrinsic orientation was also found to be an individual characteristic affecting learning motivation and effectiveness in online learning by most of previous researchers, such as by Xu (2025). Extrinsic orientation was also found to affect training motivation and effectiveness in face-to-face training by previous researchers, such as research by Aziz, Tambi, Manap, Kasim, Idris and Selamat (2015) that used samples among academic staff in a Malaysian public university. However, the influence of extrinsic orientation on online training motivation was vague and should be tested further. Therefore, an alternative hypothesis is constructed to be tested as follow:

Ha4 = Extrinsic orientation is a significant factor influencing online training motivation among youths attending an online training related to volunteerism at 0.05 level of significance.

In previous research, Aziz (2018a) explains that organizational commitment was one of important individual characteristics affecting employees' training motivation and effectiveness. However, since the participants and applications of training nowadays were broadened into other types of trainees, such as school student, entrepreneur, community, youth, adolescent, etc., the commitment should be particular to the content of training. For example, if the training is about volunteerism, then the commitment should be about volunteer commitment. Therefore, volunteer commitment is defined as "the extent to which an individual has a strong belief and acceptance of the goals and values of voluntary work" Suandi (1991, p.13). Like extrinsic orientation, organizational commitment was found to be an individual characteristic affecting face-to-face training motivation and effectiveness by most previous researchers, such as by Aziz et al. (2015) and Treuer, McHardy and Earl (2013). However, the influence of volunteer commitment on online training motivation and

effectiveness was vague and should be tested further. Therefore, an alternative hypothesis is constructed to be tested as follow:

Ha5 = Volunteer commitment is a significant factor influencing online training motivation among youths attending an online training related to volunteerism at 0.05 level of significance.

### **Methodology**

A pre-experimental design was used to achieve the research objective. An open-registration for Volunteerism Online Training was organized on behalf of the University Kebangsaan Malaysia/UKM (The National University of Malaysia) in June 2021; the program was free of fees and advertised through university's advertising channel and social media. The organization of online training was handled by a group of students registered for SKPM2093 subject (Training Management and Behavior Modification) as part of their group assignment with lecturer's supervision. The program was also registered with UKM's formal portal for student activities named i-star with code SKPM2093-2021-100 and designed intensively with lecturer's supervision.

The online training used in this research was organized in a day, delivered in Malay language, and invited three speakers including from UKM and an NGO named Play Pray Nation (a non-government and non-profit organization). The first speaker was a lawyer that work as volunteer to represent the NGO named Mr. Iman Norhizam, the second speaker was a volunteer at the NGO named Miss Maryam Saiful Bahri, and the third speaker was a lecturer at UKM in related expertise. The objective of Volunteerism Online Training was to provide trainees with general knowledge and attitude of volunteerism by taking example from volunteerism in handling children in programs organized by the Play Pray Nation.

On the other hand, instruments used to measure individual characteristics including the intrinsic orientation, extrinsic orientation, self-efficacy, and volunteer commitment were adapted from Aziz (2013); each variable was measured by four items. Sample item to measure intrinsic orientation was "I take this training because I want to be more effective in volunteerism". Sample item to measure extrinsic orientation was "I take this training because I want to increase my volunteerism opportunities". Sample item to measure self-efficacy was "I feel confident that I have online learning ability equal or exceed those of my peers". Items to measure volunteer commitment was adapted from instrument measuring organizational commitment by Aziz (2013); sample item was "I talk up to my friends that volunteerism is a great aspect to work for".

Meanwhile, to measure online training motivation, an instrument used to measure essential training motivation that comprises 10 items by Aziz (2018b) were adapted; sample item was "I try to learn as much as I can from this online training". Additionally, the effectiveness of online training was measured using an instrument adapted from Suandi (1991) to measure knowledge and attitude of volunteerism using 15 items that were asked as pre- and post-perception of the training objective achievement (learning performance) to determine the online training effectiveness; sample item was "Volunteer work has value in the society". All instruments or questionnaires were constructed in dual languages including Malay and English language and were disseminated to trainees using a link of google form. Trainees need

to answer all questionnaires based on 10 scales; in which, scale 1 represent strongly disagreed, and scale 10 represents strongly agreed.

A total of 52 Malaysian youth aged 18 to 30 years old have attended the online training on the basis of voluntary participation; in which, these trainees agreed to be the subject of pre-experiment as a part of requirement to join the online training. These trainees had signed for pre-registration a week before the online training was organized and were asked to answer questionnaires measuring individual characteristics and pre-training knowledge and attitude related to volunteerism before the online training was organized. Then, in the middle of training, trainees were asked to answer questionnaires related to online training motivation. Finally, after the completion of training, trainees were asked to answer the questionnaire for the post-training knowledge and attitude related to volunteerism.

Data were analyzed using SPSS (Statistical Package for Social Sciences) version 26. Hypothesis Ha1 was tested using a paired sample t-test; meanwhile, hypotheses Ha2 to Ha5 were tested using Multiple Linear Regression (MLR) test. In addition, the Alpha Cronbach reliability analysis indicated a good internal consistency for all instruments among the 52 respondents; in which it has Alpha Cronbach value of 0.963 for intrinsic orientation, 0.973 for extrinsic orientation, 0.916 for self-efficacy, 0.973 for volunteer commitment, 0.941 for online training motivation, and 0.976 for post-knowledge and attitude related to volunteerism. Additionally, using pre-analysis of the MLR test among the 52 respondents, findings indicated that data fall under parametric assumptions based on the results of several additional tests and cut-off points suggested by Pallant (2020).

### **Findings and Discussion**

Findings indicated that several individual characteristics were significantly influencing online training motivation including intrinsic orientation, extrinsic orientation, and volunteer commitment; however self-efficacy was not a significant predictor. All of these individual characteristics also explains 87.3% variance in online training motivation and significance at 0.0001 level of significance; in which, the online training was also proven effective. Most of research findings are consistent with the Theory of Training Motivation by Colquitt et al. (2000) that explains several individual characteristics including intrinsic orientation, extrinsic orientation, and commitment related to training content influence training motivation.

A paired sample t-test was done to determine whether the online training is effective by comparing between the pre- and post-perception of acquired knowledge and attitude towards volunteerism. Table 1 and Table 2 represent the results of paired sample t-test. Meanwhile, Figure 1 shows the mean scores for respondents' perceived acquired knowledge and attitude towards volunteerism as measured before and after the completion of training. Findings indicated that there was a significant difference between the mean scores as measured before and after the completion of the online training program.

There was significant improvement before ( $M = 7.4115$ ,  $SD = 1.98748$ ) and after the completion of online training ( $M = 9.3808$ ,  $SD = 0.86976$ ) with the change of  $t(51) = 7.294$ ,  $p = 0.0001$  (two-way). The increase in mean scores was 1.96923 with 95% confidence interval for the difference between 1.42721 and 2.51125. Using the formula explained in Pallant (2020), the eta-squared statistic shows a large effect size (0.5106). Therefore, hypothesis Ha1

has failed to be rejected indicating that there is a significant difference of knowledge and attitude towards volunteerism as measured before and after the completion of the online training program. Finding is consistent with research done by Aziz (2016) and Estevez et al. (2018) that found a significant difference of learning among participants as measured before and after the completion of training indicating training effectiveness. Hence, findings indicated that the Volunteerism Online Training is effective.

Table 1  
*Paired Sample Statistics*

		Mean	N	Standard Deviation	Standard Deviation Error
Pair 1	Post	9.3808	52	.86976	.12061
	Pre	7.4115	52	1.98748	.27561

Table 2  
*Paired Samples Test*

	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
Pair 1 Post - Pre	1.96923	1.94690	.26999	1.42721	2.51125	7.294	51	.000

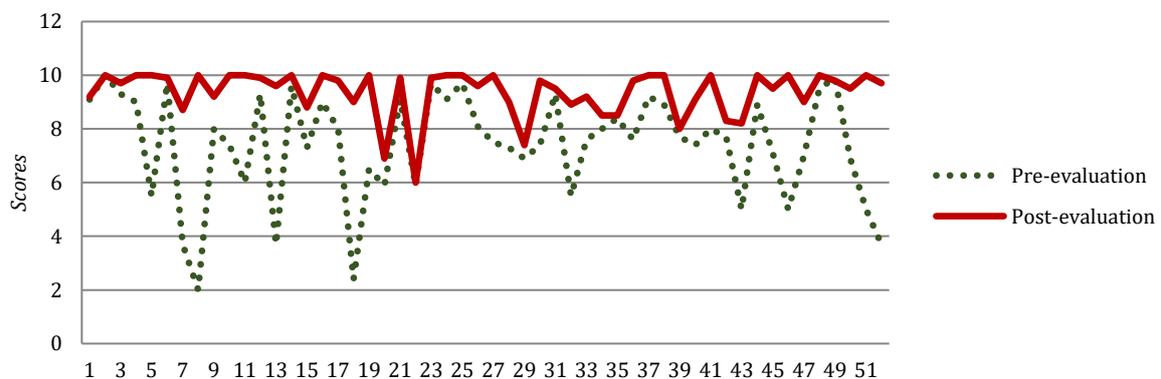


Figure 1: Mean scores for respondents' acquired knowledge and attitude towards volunteerism as measured before and after the completion of training

On the other hand, Table 3 to 5 show the results for the MLR test; in which, self-efficacy was found to be an insignificant influence to the respondents' online training motivation ( $\beta = 0.05, p = 0.361$ ). Finding is inconsistent with previous research that found self-efficacy influences learning motivation in online learning by Hongsuchon et al. (2022) and in face-to-face training by Ibrahim et al. (2020). This might be explained by the context of training; in which, the Volunteerism Online Training was offered as additional knowledge and attitude, and was a fun training without fees and exam to be taken. The online training was also organized using Google Meet that is usually used as online learning platform by the Malaysian and did not used complex online learning platform. Therefore, trainees might feel distress that they did not feel high self-efficacy to be excellent or to perform in the training. Hence, their self-efficacy did not influence their online training motivation.

Additionally, research by Hill et al. (2021) explained that adults faced difficulty to learn training content and fulfill the needs of high computer-literacy in online training related to volunteerism; in which, higher self-efficacy is needed to increase trainees' online training motivation and effectiveness. Another research by Vancouver and Kendall (2006) found that self-efficacy had a significant negative relationship with participants' learning motivation and performance among undergraduate youths in a university; in which, when respondents had high self-efficacy to learn, they became overconfident and had less effort to perform a very difficult exam. Hence, those previous researches demonstrated that self-efficacy was significant and needed to increase trainees' motivation and effectiveness in a training that has moderate level of difficulty; but it can be insignificant in training that has low level of difficulty, and it can also have negative influence in training that has high level of difficulty. Hence, hypothesis Ha2 (self-efficacy is a significant factor influencing online training motivation among youths attending an online training related to volunteerism at 0.05 level of significance) is rejected.

Further, intrinsic orientation was found to be a significant influence to the respondents' online training motivation ( $\beta = 0.691$ ,  $p = 0.001$ ). Finding is consistent with previous research that found intrinsic orientation influences learning motivation in online learning by Zhou and Zhang (2024); finding also consistent with research by Mohamad and Rahman (2023) that found intrinsic orientation influences training motivation in face-to-face training. Hence, hypothesis Ha3 (intrinsic orientation is a significant factor influencing online training motivation among youths attending an online training related to volunteerism at 0.05 level of significance) failed to be rejected.

Furthermore, extrinsic orientation was found to be a significant influence to the respondents' online training motivation ( $\beta = 0.166$ ,  $p = 0.006$ ). Finding is consistent with previous research that found extrinsic orientation influences learning motivation in online learning by Xu (2025); finding also consistent with research by Aziz et al. (2015) that found extrinsic orientation influences training motivation in face-to-face training. Hence, hypothesis Ha4 (extrinsic orientation is a significant factor influencing online training motivation among youths attending an online training related to volunteerism at 0.05 level of significance) failed to be rejected.

Finally, volunteer commitment was found to be a significant influence to the respondents' online training motivation ( $\beta = 0.211$ ,  $p = 0.005$ ). Finding is consistent with previous research that found trainees' commitment related to the training content, such as organizational commitment influence trainees' training motivation, such as by Aziz et al. (2015), and Sahinidis and Bouris (2008). Hence, hypothesis Ha5 (Volunteer commitment is a significant factor influencing online training motivation among youths attending an online training related to volunteerism at 0.05 level of significance) failed to be rejected.

Table 1

*Model Summary<sup>b</sup>*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.940 <sup>a</sup>	.883	.873	.30978	1.695

a. Predictors: (Constant), Volunteer Commitment, Self-Efficacy, Extrinsic Orientation, Intrinsic Orientation

b. Dependent Variable: Online Training Motivation

Table 2

*ANOVA<sup>a</sup>*

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	34.070	4	8.518	88.757	.000 <sup>b</sup>
	Residual	4.510	47	.096		
	Total	38.581	51			

a. Dependent Variable: Online Training Motivation

b. Predictors: (Constant), Volunteer Commitment, Self-Efficacy, Extrinsic Orientation, Intrinsic Orientation

Table 3

*Coefficients<sup>a</sup>*

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients		
1	(Constant)	1.402	.438		3.197	.002
	Intrinsic Orientation	.567	.059	.691	9.681	.000
	Extrinsic Orientation	.111	.038	.166	2.903	.006
	Self-Efficacy	.021	.023	.050	.922	.361
	Volunteer Commitment	.168	.057	.211	2.944	.005

a. Dependent Variable: Online Training Motivation

The MLR results also show that individual characteristics studied in the current research explained 87.3% variance in online training motivation ( $R^2 = 0.873$ ,  $p = 0.05$ ); in which, according Ferguson (2009), it has a large effect on the dependent variable. Hence, it can be concluded that individual characteristics has a large effect on online training motivation among the Malaysian youths attending the Volunteerism Online Training.

### Research Implications, Limitations and Future Research

Findings of this research supported the Theory of Training Motivation as proposed by Colquitt et al. (2000); in which, the current research has empirically proven that several individual characteristics including self-efficacy, intrinsic orientation, extrinsic orientation, and commitment related to training content (volunteer commitment) are significantly influencing online training motivation. Findings also consistent with a large number of previous researches done using sample from face-to-face training including those by Sahinidis and Bouris (2008), Aziz et al. (2015), and Mohamad and Rahman (2023); findings also consistent with previous researchers that used samples from online learning by Zhou and Zhang (2024), and Xu (2025).

The difference between the current research and previous research is that the current research has proven that individual characteristics not only influence training motivation in face-to-face training and online learning but also in online training. These individual characteristics can be used to provide intervention to increase online training motivation and effectiveness, especially among youth; these individual characteristics can also be used to determine and select the right trainee to attend training especially for expensive and limited training. Additionally, self-efficacy was found to be an insignificant individual characteristic affecting online training motivation in the Volunteerism Online Training; it is believed because the training has a low level of difficulty and thus affecting trainees' self-efficacy.

From the perspective of Human Resource Development (HRD) field of study, samples used in the current research were from generation Z and millennial; in which, findings demonstrated that online training is an effective medium of training among these generations. According to Mantha and Krishna (2024), these generations are those that were born and grew up during the internet era. Hence, individual characteristics including intrinsic orientation, extrinsic orientation, and commitment related to training content can be used by HRD practitioners to determine the readiness for generation Z and millennial to attend online training. On the other hand, from the perspective of the Human Development field of study, findings demonstrated that online training is a type of training preferred by generation Z and millennial; hence, online training can be used to develop intellectual capital among these generations by involving them in various types of training in terms of the outcome of content, types of participants, and various online training methods. Meanwhile, individual characteristics including intrinsic orientation, extrinsic orientation, and commitment related to training content should be nurtured among youths before they are offered to attend online training to maximize the online training effectiveness.

However, future research is needed to verify whether several independent variables including self-efficacy have different effects on trainees' training motivation and effectiveness when there are various levels of difficulty to learn the training content. In addition, there are other individual characteristics that were found to influence training motivation and effectiveness in face-to-face training but are not studied in the current research including trainees' personality (e.g., by Colquitt et al., 2000), demographic variables (Zhou & Zhang, 2024), digital literacy (Vaszkun & Szakács, 2025), etc.; these variables should be studied in future research. Further, the current research used quantitative and pre-experimental research as research design; in which, future research is suggested to use qualitative study to explore and explain how individual characteristics are influencing online training motivation and effectiveness.

### **Conclusion**

In conclusion, the purpose of this research was to determine the influence of several individual characteristics on online training motivation since previous research had only focused on face-to-face training and online learning. Using a pre-experimental research design, data were collected among 52 Malaysian youths aged 18 to 30 years old. Findings indicated that individual characteristics explained 87.3% variance in online training motivation; in which, the online training was also proven effective. However, only intrinsic orientation, extrinsic orientation, and volunteer commitment that are related to the content of online training are significant individual characteristics affecting trainees' online training motivation; meanwhile, self-efficacy was not a significant predictor. Findings have

implications, limitations, and future research suggestions for the field of Human Resource Development and Human Development field of study.

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