Effect of E-Coaching and Learning Styles on the Performance Training Participants

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Abstract

The increasing intensity of the use of technology through distance learning in the Covid-19 era occurred at the training site for the best achievements of participants. Combination research from The Unified Theory of Acceptance and Use of Technology (UTAUT) and Felder-Silverman Learning Style Model (FSLSM) as a goal to determine the effect of the performance of supervisory leadership training participants at the National Institute of Public Administration (NIPA) in Samarinda. This quantitative study collected 197 data from the survey and then processed the data using warp PLS 6, with the aim of researching participant behavior in e-coaching and learning styles on performance. Results show variables of performance expectancy, effort expectancy has a significant positive effect on behavioral intentions in coaching, and the relationship between behavioral intentions in coaching is significantly positive on performance, while the social influence on behavioral intentions in coaching has an insignificant negative effect, learning style on behavioral intentions in

coaching has a positive and insignificant effect and learning style on performance has a significant negative effect so that indications of increased behavioral intentions in coaching will reduce the social influence and there is not always a change in learning style, but when there is an increase in performance there will be a change in the learning style of the participants.

Keywords

E-Coaching, UTAUT, FSLSM, Performance Participant.

Introduction

Impact COVID-19 pandemic in all parts of the world has changed a lot a method and model of conducting training, including training at the level of bureaucratic leadership in Indonesia. Civil servants holding positions are required to have managerial competence, in order to be able to manage work well and change the paradigm of service to the public, one of these competencies is through training in increasing competence because government employees must continue to improve their competencies so that they are able to carry out services, effectively and efficiently, in accordance with the times that are increasingly developing (Cordella & Tempini, 2015). Study looks at the implementation of leadership training mandated in the apparatus policy in Indonesia, which requires an civil servants who is selected as a participant to make an action for change in the organization, which is assessed as a final evaluation with a predetermined duration.

In the process of planning to implement change actions in training, participants are guided by a coach. Coach is a facilitator who helps coaches to develop an understanding of themselves and their work so that they can improve their performance and the initial coaching process is carried out through dialogue which helps coaches to see new perspectives and reach a level of familiarity and clarity of views follow-up actions and their surroundings (Sachlarides & Kane, 2021). The collaboration of information technology with the implementation of training during the covid-19 pandemic makes the guidance process between the coaches and the coach carried out with an online system. Electronic coaching (e-coaching) is known as online coaching, or in other words, web coaching, digital coaching and virtual coaching or online-based coaching, through the latest technological media modalities so that communication can run well, such as mobile phones and network-based computer devices internet and supported by additional applications (Ribbers & Waringa, 2015; Deniers, 2019). Technological sophistication helps individuals produce accurate and timely information to make decisions (Céspedes-Lorente et al., 2018).

Information technology includes 2 interaction groups, namely real-time via telephone, video calling, and teleconference and non-time via short message service, e-mail, online discussion groups in the form of applications (Kapoor et al., 2018), so that in the coaching process participants must choose the right media for interaction, to minimize obstacles from the geographical distribution of the training participants' origin areas, as well as the characteristics of participants' understanding through learning styles in utilizing technology, learning styles through technology media can influence ways of diagnosing goals, needs from performance and behavioral interest in using technology media (Crockett et al., 2017; Heidrich et al., 2018) phenomenon in this study.

The research model was formed from a modification of the Unified Theory of Acceptance and Use of Technology (UTAUT) with the addition of learning style variables from the Felder-Silverman Learning Style Model (FSLSM) (Felder & Silverman, 1988), so that from the training implementation method, the research objective is to validate the behavioral intentions of trainees in implementing e-coaching that affect the performance of supervisor leadership trainees at the NIPA in Samarinda, through quantitative methods.

The facilitating conditions variable was not included in the study, because digital devices have now become multifunctional devices, and adopt research (Okojie et al., 2020; Williams et al., 2015), which claims that facilitating conditions are not a significant driver of interest in using when behavioral technology intention and performance expectancy become variables. Data were taken from participants who had completed the entire series of training activities and collected 197 data and processed using WarpPLS 6 software so that six hypotheses were monitored, there were three relationships that supported the hypothesis and three relationships that did not support the hypothesis as the findings in the study that is: i.) relationship between social influence and behavioral intention of participants to use technology for coaching, the results were negative and not significant; ii.) Relationship between the influence of learning styles and the behavioral intention of participants to use technology for coaching, the results are positive and not significant, and iii.) Relationship between the influence of learning styles with performance with significant negative results. Referring to the results of the study, planning to implement training for civil servants with diverse participant characteristics can be guided by the implementation of coaching using information technology media.

Literature Review and Hypothesis Design

Training participants become important actors in this research, which starts from the coaching process using technology media, designing and implementing innovative

products as an act of change that becomes their performance evaluation during training, so that this phenomenon becomes the goal of studying behavioral intentions using technology media and learning styles on the performance of supervisory leadership training participants at the NIPA in Samarinda, Indonesia.

Performance Expectancy

The basic understanding of performance expectancy is the degree to which individuals believe that using technology will help to obtain performance benefits on the job (Fuad et al., 2021). There is a sense of enjoyment, learning independence, self-satisfaction, and trust in the system when used for learning using the right media (Chao, 2019), these factors are aimed primarily at individuals who understand technology, especially millennials (Chua et al., 2018). Performance expectancy of technology used in learning has a positive and significant effect (Awwad & Al-Majali, 2015; Arif et al., 2017; Chao, 2019). Therefore, we make the following hypothesis.

H_1: Performance expectancy positively and significantly affects participant's behavioral intention to use technology in coaching

Effort Expectancy

Effort expectancy technology devices cannot be separated from the benefits of facilitating work to achieve high performance; technology media should provide convenience for users (Li et al., 2021). Ease start from time effectiveness so that individual interest in using technology causes feelings of pleasure when working using it. According to the findings of (Abdullah et al., 2015; Masa'deh et al., 2016; Arif et al., 2017; Li & Alduais, 2018) effort expectancy influences behavioral intention positively and significantly for individuals to accept and use technology media, but age can also influence (Isaias et al., 2017), then the hypothesis used is.

H_2: Effort expectancy positively and significantly affects participant's behavioral intention to use technology in coaching

Social Influence

Media technology can improve a person's social image in certain situations (Rodriguez & Heras, 2020). Social influence is a determining factor of behavioral targets in utilizing technological media which is matched as a subjective norm because social influence occurs and becomes a differentiator if its use is influenced by other individuals (Ekawati et al., 2020). Studies (Awwad & Al-Majali, 2015; Farooq et al., 2017; Gupta et al., 2018) that social influence has a positive and significant effect on behavioral intention, while

(Hew et al., 2015; Thongsri et al., 2018) became the opposite. Therefore, the following hypothesis is proposed.

H[3]: Social influence positively and significantly affects participants' behavioral intention to use technology in coaching

Learning Style

Learning Style is individual behavior in understanding learning, differentiating individual learning processes (Wang et al., 2020), basically is how individuals process information (Logan & Thomas, 2002). The use of the learning dimensions FSLSM is most suitable to be applied in the distance learning process using technology media so that basic information is obtained from the interaction of learning with technology (Kolekar et al., 2018), it can also be obtained data that can be processed become the determination of learning styles (). Learning styles through technology media will affect behavioral intentions and ways to diagnose achieving the best performance (Crockett et al., 2017; Heidrich et al., 2018). The positive and significant influence of learning style on behavioral intention from the use of technology when coaching Seyal & Rahman, 2015), and (Zhao et al., 2021; Cheng et al., 2017) did not confirm this in their research. According to studies, learning styles have a positive and significant impact on performance (Wilkinson et al., 2014; Zagulova et al., 2019), and (Abdullah et al., 2015). The behavior of each individual in everyday life is indirectly or directly related to knowledge, so that in the end it provides an increase in the individual (Heydari et al., 2021). Therefore, the following hypothesis is proposed.

H[4]: Learning styles positively and significantly affect participants behavioral intentions to use technology in coaching

H[5]: Learning style positively and significantly affects performance participants

Behavioral Intention

Individuals will have attitudes including diverse interests towards the use of technology (Kim et al 2020), so they will continue to be used, and will be a determinant of their behaviour to use technology media to achieve a performance target (). Studies (Billingsley & Scheuermann, 2014; Céspedes-Lorente et al., 2018; Leontyeva, 2018) confirms that behavioral intention has a positive and significant effect on performance, that motivation also creates intense interactions (Fonseca et al., 2014; Cheng et al., 2015).

H[6]: Behavioral intention to use technology in coaching positively and significantly affects the performance of participants.
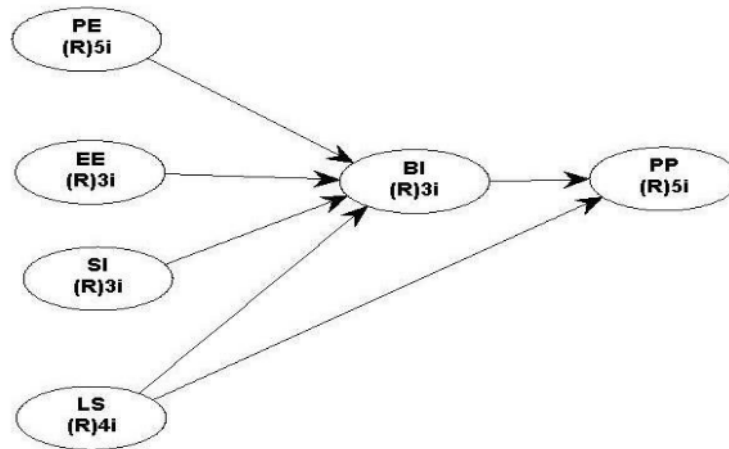
Fig. 1 Research framework

Method

This research method is quantitative, with data taken through a questionnaire which is used to validate the model, target population is supervisory leadership training participants at the NIPA in Samarinda regarding their perspective on the use of technology media when carrying out coaching, where a Likert scale with five levels determines the choice of respondents, with 197 respondents, the data was checked using the PLS technique with WarpPLS 6.0 software. The questionnaire is separated into two sections, one for demographic information and the other for the quantity of data collected and processed. Demographics of the respondents are depicted in the following table 1.

Table 1 The Sample's Demographics

Characteristics	Frequency	Percentage
Gender		
• Male	108	55,82
• Female	89	45,18
Age (years)		
• Less than 25	0	0
• 26 Less than 30	20	10,15
• 31 Less than 40	85	43,15
• 41 Less than 50	77	39,09
• More than 51	15	7,61
Education level		
• Associate Degree	11	5,58
• Bachelor's Degree	113	57,36
• Master's Degree	70	35,53
• Doctoral Degree	3	1,52

Data Analysis and Results

1. Measurement Model

Measurement with a sufficient standard of value is required to test the model's dependability and validity. Reliability testing uses the cronbach's alpha formula and is considered reliable if the cronbach's alpha value >0.6 (Hair et al., 2020), and a construct is said to meet composite reliability if it has a value >0.7 (Solimun et al., 2017), (see Table 1) it is concluded that all constructs meet the reliable criteria based on the composite reliability value above 0.7 and cronbach's alpha value above 0.6 as recommended criteria, referring to (Solimun et al., 2017) as the basis for the initial stage of developing a measurement scale of outer loading >0.6 which is considered adequate and used in this study, regarding the AVE values for all constructs exceeding the threshold of 0.5, convergent validity was confirmed. So, Table 1 shows all of the stated constructs that fulfill the criteria and are recognized for discriminant validity.

Table 1 Convergent Validity and Reliability Results

| Construct	Internal Consistency Reliability		Convergent Validity	
	Cronbach's alpha (>0.6)	Composite reliability (>0.7)	AVE (>0.5)	Outer loading (>0.6)
Performance Expectancy (PE)	0.936	0.915	0.864	0.882 0.856 0.841 0.899 0.839
Effort Expectancy (EE)	0.938	0.901	0.914	0.860 0.956 0.924
Social Influence (SI)	0.937	0.899	0.913	0.952 0.903 0.883
Learning Style (LS)	0.950	0.928	0.909	0.927 0.811 0.979 0.912
Behavioral Intentions (BI)	0.917	0.836	0.886	0.932 0.848 0.877
Performance Participants (PP)	0.923	0.891	0.844	0.613 0.909 0.949 0.746 0.949

The p-value estimated through WarpPLS 6.0 can be evaluated for model fit, In Table 2 shows the value obtained by a good fit between the model and empirical data, and the model can be brought for hypothesis testing, according to the statistical conclusion.

Table 2 Overall Fit Measurement for Model Evaluation

No.	Model Fit & Quality Indeces	Value	p-values
1.	Average path coefficient (APC)	0,329	$p < 0,001$
2.	Average R-squared (ARS)	0,527	$p < 0,001$
3.	Average adjusted R-squared (AARS)	0,521	$< 0,001$
4.	Average block VIF (AVIF)	12,561	acceptable if ≤ 5, ideally ≤ 3.3
5.	Average full collinearity VIF (AFVIF)	16,895	acceptable if ≤ 5, ideally ≤ 3.3
6.	Tenenhaus GoF (GoF)	0,645	small ≥ 0.1, medium ≥ 0.25, large ≥ 0.36
7.	Simpson's paradox ratio (SPR)	0,767	acceptable if ≤ 0.7, ideally $=1$
8.	R-squared contribution ratio (RSCR)	0,738	acceptable if ≤ 0.7, ideally $=1$
9.	Statistical suppression ratio (SSR)	1,000	acceptable if ≤ 0.7
10.	Nonlinear bivariate causality direction ratio (NLBCDR)	1,000	acceptable if ≤ 0.7

2. Hypothesis Testing

The relationship between latent constructs in the research model can be seen from the results of the path coefficients and the level of significance p-value and level of significance used in this study is <0.05, following is the model based on the test results:
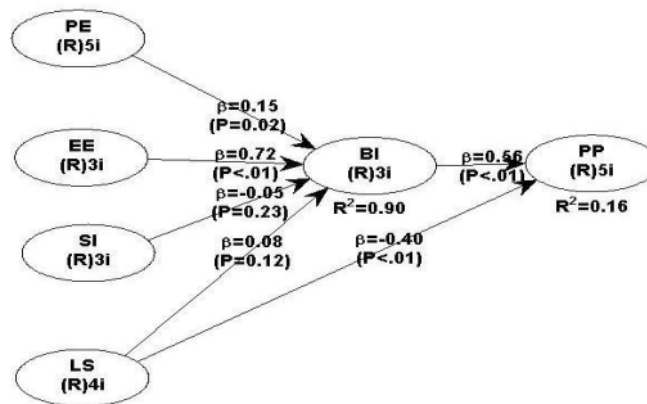
Fig. 2 Result Test of Indirect Effect

The results of the hypothesis show that three initial hypotheses are in accordance with the researcher's predictions, namely performance expectancy and effort expectancy have a positive and significant effect on participants behavioral intention to use technology in coaching (H_1: $\beta=0.147$, $p<0.018$; H_2: $\beta=0.725$, $p<0.001$) and behavioral intention to use

technology in coaching positively and significantly affects the performance of participants (H$_6$: β=0.565, p<0.001), while the other three relationships are social influence negatively and do not significantly affects participants behavioral intention to use technology in coaching (H$_3$: β=-0.052, p<0,233), Learning styles positively and does not significantly affect participants behavioral intentions to use technology in coaching (H$_4$: β=0.083, p<0.119) and learning style negatively and significantly affects performance participants (H$_5$: β=-0.402, p<0.001).

Discussion and Conclusion

The study that modifies the model from UTAUT and adds learning style variables from FSLSM, provides results using PLS analysis confirming that performance expectancy positively and significantly affects participants behavioral intention to use technology in coaching, results of this study confirm previous studies by (Awwad & Al-Majali, 2015; Arif et al., 2017; Chao, 2019; Panjaitan, 2019), regarding the performance expectation, the high degree of technology media will be able to boost participants confidence in behavioral intention to do a task, particularly in this study, which is conducting coaching through technology media. Other findings support the hypothesis that participants behavioral intention to use technology in coaching are positively and significantly influenced by effort expectancy, which means effort expectancy is the ease of users in utilizing a technology media (Taylor & Todd, 1995) or simplicity of using technology (Masa'deh et al., 2016), findings of this study have been able to confirm previous research from (Abdullah et al., 2015; Arif et al., 2017; Li & Alduais, 2018) that high effort expectancy can increase individual confidence in behavioral intention to do a job, specifically in this research is to conduct coaching through technology media.

The findings occur in the relationship between social influence and participants behavioral intention to use technology in coaching, with negative and not significant results, these results do not confirm the studies conducted by (Awwad & Al-Majali, 2015; Farooq et al., 2017; Gupta et al., 2018), and support studies from (Hew et al., 2015; Thongsri et al., 2018) about social influence will not be able to increase participants confidence in behavioral intention in work.

Based on the previous results that learning styles positively and does not significantly affect participants behavioral intentions to use technology in coaching, the results of this research support previous empirical studies from (Seyal & Rahman, 2015) about learning styles that influence behavioral intentions to use technology in coaching, and the relationship between learning style and participants performance gives negative and

significant results, this supports empirical studies from previous research from (Abdullah et al., 2015; Li & Alduais, 2018), where learning style will affect performance, because of differences in the demographics of the trainees (Olanipekun et al., 2020), detail an individual difference that varies in terms of age, gender, and educational background, so that an individual's behavior in understanding knowledge, as well as correctly processing information differs.

The last is behavioral intention to use technology in coaching positively and significantly affects the performance of participants, as a result, these findings back up individual beliefs about using technology to boost their success and future actions, and confirm previous studies (Fonseca et al., 2014; Billingsley & Scheuermann, 2014; Cheng et al., 2015; Céspedes-Lorente et al., 2018; Leontyeva, 2018), regarding behavioral intention to use technology by trainees in coaching with high intensity will be able to increase individual confidence in improving performance in carrying out actions.

As previously stated, the emphasis of this study is only on supervisory trainees who are coaching using technology media thus; more research is needed to test the model with participants of various training levels, and special media from the technology used in coaching implementation. Furthermore, further research should be done to compare the usage of technology in different training environments.

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