Int. J Sup. Chain. Mgt Vol. 9, No. 5, October 2020

# E-Learning to Increase Employee Engagement during Covid-19

Sabilul Hudaya, Helena Augusta, Asnan Furinto, Dewi Tamara

Magister Manajemen BINUS Business School, Universitas Bina Nusantara, Jl. Hang Lekir INo. 6, Senayan, Kebayoran Baru, Jakarta Selatan, DKI Jakarta, Indonesia

Abstract E-learning has provided economic benefits for the bank and its staff. It can be interpreted that E-learning is a learning activity consisting of a series of application uses, namely the learning system via the web, virtual classes, or learning using computers. Through E-learning, staff can increase the knowledge and skills needed without disrupting work processes, regardless of time and space. At the same time, staff engagement is also an important factor for the bank to show whether the staff is motivated and productive. Therefore, this paper offers information regarding on elearning and bank's staff engagement before and during the COVID-19 situation, where the concept of social distancing must be applied to avoid the spread of the virus. Researchers used quantitative research methods in conducting research on staff from one of the top 10 banks in Indonesia based on total assets in 2019. In addition, the study explores mediating variables from Technology Acceptance Model (TAM) to explain the relationship between e-learning and staff engagement. However, because there are not many studies have been conducted regarding e-learning and staff engagement on this in the banking workplace, this paper furthermore can provide information on of remodeling learning methods with the adaptation of new ways of working. Keywords: E-learning, Employee Engagement, Bank, **COVID-19 situation.** 

**Keywords:** : Fintech, SME, covid-19 Pandemic, management, business continuity

#### 1. Introduction

Since beginning of world change in industrial revolution 4.0 where the one of major change is "internet of thing". New era with digital process has introduced to the world and influenced to all business sector including bank industry. In the digital era, employees need to process more information more quickly and learn more new things than in previous eras. To pursue productivity, employees are no longer oriented towards traditional learning methods, but must have flexibility to doing the job at anywhere, anytime, and any condition in order to more efficient in job completion process and on time schedule.

Facing this changes, modern training methods also need to be introduced to the employee and implemented in the business organization process. One of the modern methods to improve employee competence in both of individually and groups is e-learning method. This method complements the traditional learning process [1].

Today, many Banks has included e-learning applications in their curriculum [2]. Align with global innovation, the Bank can adjust the cost of training their staff by reducing costs and transferring them to the e-learning program, which more efficient and effective. E-

learning material itself can be shared in electronic form and based on the interaction of technology and communication [3]. The implementation can be done at the branch after the transaction time or outside the office / home environment.

As the COVID-19 pandemic spreads around the world starting from December 2019, effecting economic slowdown and impacting banking industry. Strategy and thoughtful decisions are made that will save the organization and their employees. The government and Bank Indonesia (BI) continue to roll out stimulus to mitigate risk and maintain the health of the banking industry. Another step taken by the banking industry itself is to reshape the business and operational models to keep the economy running. The Bank also rediscovered how to work and organize based on this new norm, starting from how to respond to new shift of customer demand, i.e. who apply for credit relaxation, paperless transaction, remote or virtual advisory, yet still maintain the risk factor and ensure employees healthy and safety. Even though, the current condition of banking industry in Indonesia were claimed still strong compare to the economic crisis in 1998 and 2008 with CAR ratio of around 23%, and a low NPL of around 2.5% on a gross basis [4].

In training functions of the bank, this situation also has an impact, as they have shifted dramatically. The concept of physical distancing requires staff to stay and work from home. Face to face meeting and classroom learning, urgently change into online system. There is a significant positive effect on the application of e-learning to organizations in "normal situations" and also examples that can be identified such as increased performance in positive trends. With this e-learning will save the training function [5], as well as an increased motivation, commitment, and engagement in participants [6-8]. Also, in "normal situation", e-learning has been successfully implemented in established and large organization of bank industry. Platform e-learning providing benefits for employees, namely a variety of online course solutions and on demand from leadership training, technical skills to personal development, where the implementation can help employees to stay engage in work. This causes a strong relationship between learning and engagement. A study from Udemy [9] one of a well-known e-learning platform, shown that employees who have spending more time in learning to use e-learning have a high engagement to the company. As many as 52% of companies whose employees learn through e-learning for an average of 31-50 hours per year have a higher level of engagement compared to companies that have lower learning hours. Based on the current situation occurs, researchers want to see the relationship in e-learning which is considered a method for employees to develop themselves and gain knowledge and skills, to engagement level of bank staff before and during COVID-19 situation. Though the implementation of e-

Int. J Sup. Chain. Mgt Vol. 9, No. 5, October 2020

learning before the COVID-19 situation is common among established and large banks in Indonesia. For organizations that have not achieved this, there are still doubts about the effectiveness of e-learning as a means of transferring skills and to employees by management [10]. The implementation of e-learning in an organization are still in the stage of adaptation and only develops rapidly in education sector.

#### **Problem Statement**

This research intends to focus on e-learning and staff engagement in banking workplace, with the aim to find out the impact of COVID-19 situation, nevertheless there is minimal study on the implementation of e-learning in organizations in Indonesia.

#### 2. Literature Review

## **Employee Engagement Model**

Organization need an employee engagement and it's important to their business success. Many organizations implement a survey to measure the employee engagement's level to find the results as an indicator of whether the program or initiative made by the organization has increase employee satisfaction and can make employees more motivated and work more productively.

Employee engagement was originally introduced by Kahn as an organization's employee attachment to the organization itself not only physically, cognitively but even emotionally in terms of its performance. So, when we discuss the constructs of employee engagement, we refer to the psychological state and behavior of employees that can lead to better performance [11].

Another definition was introduced according to Aon Hewitt, a well-known human resources consultant, employee engagement defined as emotional and intellectual commitment in a group or organization; the extent to which these organizations 'win the hearts and minds' of their members. In other word, engagement can be defined as proportion of employees of certain organizations who engaged.

For more than 15 years, Aon Hewitt engagement model has been tested and validated by employees in various companies and industries throughout the world. This engagement model has also been supported by researchers in the field of organizational psychology for many years. In this engagement model, there are six main categories (and 22 organizational antecedents), also known as "Driver Engagement", which are factors that drive the level of engagement of a person as shown in the following diagram:



Figure 1. AON Hewitt Model of Employee Engagement

Through this engagement model, it can be shown that with employee engagement with the organization, the business will benefit from: a) Increased health, retention and talent, thereby reducing absenteeism; b) job safety and operational productivity increase; c) generate satisfaction and retention of prospective customers and will affect net income; and d) operating income and shareholder returns can increase.

According to Aon Hewitt, employees are said to be engaged if they have exhibited three main behaviors, namely "Say" behavior in which engaged employees will talk about positive things about the company when with colleagues, customers and their social environment. "Stay" behavior if the engaged employee always connects his / her future sustainability with the company. "Strive" behavior if engaged employees are always motivated to give their best efforts to the company [12]

Engagement	Content		Items in Aon Hewitt Operational Definition
Say	Speak positively about the organization to coworkers, potential employees, and customers	٠	I would not hesitate to recommend this organization to a friend seeking employment
74		•	Given the opportunity, I tell others great things about working here
Stay	Have an intense sense of belonging and desire	•	It would take a lot to get me to leave this organization
*	to be part of the organization	•	I rarely think about leaving this organization to work somewhere else
Strive	Are motivated and exert effort toward	•	This organization inspires me to do my best work every day
No.	success in their job and for the company	٠	This organization motivates me to contribute more than is normally required to complete my work

Figure 2. AON Hewitt Operational Definition

This study will use survey items from Aon Hewitt specifically from dimension Learning and Development, which could describe the organization has supported employee learning and development. Modified survey item to determine whether there is an impact of the COVID-19 situation on the level of involvement of bank staff. The higher measurement of this dimension can support the higher level of employee engagement with the organization.

So far only few researches had been conducted to determine the e-learning's effectiveness modules on changes in employee behavior, as well as employee and customer engagement. In research [13] about the effectiveness of e-learning also supports this finding. There are only 18 out of 92 journals used in the study that talk about the benefits of knowledge and only 5 journals that link to employee engagement. This showing that the

Int. J Sup. Chain. Mgt Vol. 9, No. 5, October 2020

research evidence-based of e-learning's effect on employee engagement still less.

However, there have been numbers of articles that show that e-learning technology has helped to increase the level of student engagement [14-20] and there is a relationship in research conducted so far, namely e-learning as an important support platform in helping students to be more engaged in their studies. Therefore, this research opens opportunities to find out the influence between e-learning and bank staffs' engagement.

#### 3. E-LEARNING

Through E-learning we can easily share knowledge through the internet, intranet or other technology-based systems and easily reach a wider audience (Vaughan, 2004). E-learning is known to have several advantages and is considered very effective, namely to measure previous employee knowledge, use and interaction between employees and online material. The time for learning can be done continuously, flexible and accessible from anywhere. In addition, the distribution of learning materials can be done free with no limitation to a wider audience [21].

E-learning provides several advantages when implemented in an organization, which can be done anytime, anywhere. E-learning also provides effective and fast feedback. Employees can participate in e-learning without interrupting work hours, to ensure employee productivity and save costs. Some of these factors make elearning more preferred in the banking industry compared to face-to-face training or in classrooms. Where the implementation costs a lot of training costs, because the more people are trained and the more geographically dispersed, they are, the training costs are also large. If you use e-learning, the costs incurred by the company are 100% used for training, without any other costs. This e-learning method is very effective if applied to companies that have a large distribution chain and are spread in various regions, the development can be done without the need to conduct physical training.

Therefore, the advantages of the e-learning method are including the ability to facilitate participation anywhere at any time, save costs, save time, increase consistency, be more flexible and interactive. Simultaneously, e-learning has the potential to encourage employees to share skills and be more engaged than in traditional classroom training.

In this study, e-learning is defined as an employee learning method through the application of information technology by sending learning content through electronic channels, namely intranet, internet, video, audio recording, interactive TV, satellite broadcasting and CD-Rom. Learning activities consisting of a series of activities through processes and applications, including virtual classrooms, web learning and computer learning; also categorized as e-learning.

#### E-Learning & Employee Engagement

Several studies show that the reason employees leave work is because employees do not feel their current position has an opportunity to grow. Supporting this, it has been found by the National Business Institute that 23% of employees leave their jobs due to lack of opportunities for learning and development. With this, the company can realize that employee engagement with learning activities is correlated [22].

Various ways can be done to overcome this challenge, but this is where e-Learning have very important role. E-learning is considered as an affordable tool to involve employees in sustainable development not only by increasing the quantity of modules and participants, but also by means of learning that are interesting, interactive and relevant.

E-learning is one of the tools to increase employee engagement, because employees are not limited to space or time because employees can access their material from anywhere. Many choices of material can be provided by elearning, making employees unaware that they are in training sessions, for example using podcasts, augmented reality, learning games, simulations, and many more. In this study, we will explore whether this e-learning has impact with employee engagement, specially before and during this COVID-19 situation.

#### E-Learning within Banking Industry

Banking industry is now known to strongly support the implementation of education and employee development. In contrast to the past, where employees were hired only to have received professional education. Now new employees can be recruited and given training by the company to have ability for better adaptation in the organization. The training provided does not only cover skills and knowledge, but also the behavior of staff who can support their productivity at work. For sure this training investment needs to be made very carefully. To minimizing cost and preventing turn over's employee, organization need to adopt another organization who had established method to implement elearning. By implementing e-learning methods in banks there are several advantages, namely it can significantly minimize accommodation costs, official travel costs, room rental fees, stationery costs, class instructor fees, so the case of labor's loss due on the job training can be reduced significantly.

Along this time, international private banks can be seen to prioritize education for their employees so that they have their own training centers, for example like ABN AMRO Bank, ING Bank and other international banks [23]. The advantage of the training center held by the Bank is that it has a computer-based training application, because the training center conducts training activities in banking which are simulated using software. The training material was adjusted starting from for beginners, for bankers, and for professionals. Based on this, it is known that many international private banks such as Barclays, Citibank, ABN AMRO, Bank of America, and other banks are familiar with using software in their training with desktop applications and information technology. As many as 25% of banks in the world use custom-designed software and 75% of banks in the world use software that is already on the market.

Implementation e-learning in banking industry makes it possible for employees to flexibly utilize content and adapt it to current and future work needs. E-learning model in banking also provides standards and frameworks to train large numbers of employees simultaneously and generate financial benefits.

Based on that, we can see the use of e-learning in the banking industry, accompanied by clear plans and objectives, opens opportunities for creating a modern,

Int. J Sup. Chain. Mgt Vol. 9, No. 5, October 2020

efficient work environment and increasing engagement to the organization.

#### **Technology Acceptance Model (Tam)**

The Technology Acceptance Model (TAM) was originally proposed by Davis and several things were found, including the existing relationship between usability, ease of use and use of technology, in this case one of which is e-learning. This model talks about the adoption of technology in learning both internally and externally. Internal factors in this model are the perception of the usefulness of e-learning and the perception of the ease of use of e-learning. This theory admits that this perception can facilitate the use or adoption of e-learning, which leads to behavioral intention to use [24]. In the research, the researcher wanted to see whether the internal factors of this model could have an influence on the engagement of Bank employees who used e-learning before and during the COVID-19 situation.

# 4. Conceptual Framework

Independent variables determined as e-learning usage, dependent variables are the bank staff's engagement and moderating variables are perceived usefulness, perceived ease of use and behavior intention to use e-learning.

The study relationship shown below:

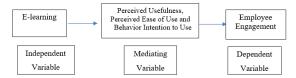


Figure 4. Research Model

# **Hypothesis Development**

Based on the literature review, we would like to compare the engagement level of banks staff in using elearning platform prior and during COVID-19 situation. Hypothesis will be tested are:

Hypothesis 0 (H0):

There is no difference in the bank staff engagement level when using the e-learning platform before and during the COVID-19 situation.

Hypothesis 1 (H1):

There is significant difference in the bank staff engagement when using the e-learning platform before and during the COVID-19 situation.

Hypothesis 2A (H2A):

Perceived of usefulness has a positive correlation on bank staff engagement when using the e-learning platform before and during the COVID-19 situation.

Hypothesis 2B (H2B):

Perceived ease of use has a positive correlation on bank staff engagement when using the e-learning platform before and during the COVID-19 situation.

Hypothesis 2C (H2C):

Behavioral intention to use has a positive correlation on bank staff engagement when using the e-learning platform before and during the COVID-19 situation.

The questionnaire items are adapted Aon Hewitt engagement questionnaire items, specifically from dimension Learning and Development, which measure that aspects with staff engagement. Then combined with questionnaire item from a study conducted by [25], because the research itself has a similarity in variable of this study and the demography chosen. The items of questionnaire based on Likert Scale from 1 it's mean "strongly disagree" to 5 mean "strongly agree".

#### Sample

The researcher used simple random sampling technique, because the polls in this study are homogenous, that is bank staff. The sampling population are 100 staff and the target respondent are bank staff who at present known as one of top 10 bank in Indonesia based on total assets in 2019. The questionnaire distributed via email and WhatsApp blast to 100 bank staff and the link can be accessed by all targeted staff. There were 85 received with complete answers so that they could be used entirely. Table 1 shows the demographic profile of the employees who were respondents, consisting of age, years of service, education, position in the bank, and job categories. Based on age distribution shows that the largest group of respondents (34 percent) is in age range 26-35 years. The largest respondents are in the working period of more than 5 years (39 percent). As for the level of education, the majority have a bachelor's degree (70 percent). Half (51 percent) of respondents are individual contributors. Other than that, the majority of respondents (37% percent) are employees who work in the back-office function.

Table 1. Respondents demographical variables (N: 85)

Variable		Frequency	Percentage	
Age	Below 26 years old	12	12%	
	26 - 35 years old	34	34%	
	36 - 45 years old	28	28%	
	above 45 years old	11	11%	
Years of Service	3 - 5 years	24	24%	
	Less than 3 years	22	22%	
	more than 5 years	39	39%	
Educational Background	Bachelor Degree / S1	70	70%	
_	Master Degree / S2	15	15%	
Organizational Position	Individual Contributor	51	51%	
	Coordinator / Team Leader	5	5%	
	Manager	18	18%	
	Department Head	8	8%	
	Division Head	3	3%	
Job Category	Front Office	23	23%	
	Middle Office	25	25%	
	Back Office	37	37%	

The results of this study show that there is an increase in the use of e-learning between before the COVID-19 pandemic, which previously took place less than 2.5 hours per month (76 percent) to be above 2.5 hours per month (79 percent), as shown in Table 2.

Table 2. Employee duration of time using e-learning platform

Duration of time using e-learning platform	> 5 hours per month	2.5 - 5 hours per month	< 2.5 hours per month
Before COVID-19	1%	22%	76%
During COVID-19	32%	47%	21%

Another interesting thing that can be seen in Table 3, is that there is an increase in e-learning modules that were selected for those studied between before and when the COVID-19 pandemic took place, namely there was an increase in employee interest in studying non mandatory modules to 67 percent from only 14 percent previously. However, they are also still studying the mandatory elearning module, although there has been a decrease from 86 percent to 33 percent.

Table 3. E-learning module most studied by employee

E-learning module most studied	Mandatory (Certification, technical banking, etc)	Non Mandatory (communication, other professional development, etc.)	
Before COVID-19	86%	14%	
During COVID-19	33%	67%	

Data Analysis

Int. J Sup. Chain. Mgt

The researcher proceeded by analyzing data collected from the questionnaire and applied paired sample t-test in SPSS 25 to reveal difference of staff engagement in using e-learning before and during COVID-19 situation. Before using the t-test, the researcher had done a normal distribution test of the results obtained and found that the results from the questionnaire were normally distributed. Guidance of decision making in Paired Sample t-test based on the significance value (Sig) SPSS output are as follows, we will reach significance, if Sig. value (2-tailed) <0.05. If Sig. value (2-tailed) >0,05 then there is no difference and we will accept null hypothesis [26]. The researcher complemented the analysis to know further how the mediating variables, such as perceived of usefulness, perceived ease of use and behavior intention has positive influence to independent variable and dependent variable, using a Pearson correlation analyses.

#### 5. Result

The statistical results in Table 4, from the two samples studied, expressing the values before and during the COVID-19 condition. Because the average value of employee engagement was between conditions before (7.79) < during COVID-19 (8.08), descriptively there is a difference in the average level of engagement.

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 4	Employee Engagement before	7.79	85	1.216	.132
	Employee Engagement during	8.08	85	1.197	.130

Figure 4: Paired Samples Statistic of Employee Engagement in using e-learning – before and during COVID 19

To prove whether this difference is significant or not, a paired sample t-test will be carried out in Table 5. Based on the Paired Sample Test output table, note the Sig. (2-tailed) is 0.22> 0.05 then H0 is accepted, so it can be concluded that there is no difference between no difference in the bank staff engagement when using the e-learning before and during the COVID-19 situation.



Fig 5: Paired Samples Test Statistic of Employee Engagement in using e-learning – before and during COVID 19

The next step is to find out whether there is a correlation between moderating variables and staff engagement when using e-learning. Researchers used Pearson correlation and analyzed conditions before and during COVID-19 situation as shown in Table 6.

Vol. 9, No. 5, October 2020

Table 4. Correlation Analysis between Mediating Variable and Employee Engagement of bank staff, before & during COVID-19

Madiation Variable	Staff Engagement			
Mediating Variable	Before COVID-19	During COVID-19		
Perceived usefullness	0.365 (0.4)	0.508 (0.6)		
Perceived ease of use	0.247 (0.4)	0.499 (0.6)		
Behavioral Intention to use	0.379 (0.4)	0.656 (0.6)		

In conditions before COVID-19, Perceive of Usefulness e-learning had a positive correlation with employee engagement, even though it's weak (0.365<0.4). Furthermore, compared to during COVID-19 situation, Perceive of Usefulness e-learning has positive correlation with employee engagement and this is indicated a moderate correlation (0.508 < 0.6)

Perceive of Ease of Use e-learning also had positive correlation with employee engagement before and during COVID-19 situation. This indicated by a weak correlation before COVID-19 situation (0.247<0.4) and moderate correlation during COVID-19 situation (0.499 <0.6).

On the other hand, Behavioral Intention to Use elearning had a positive but weak correlation (0.379<0.4) before COVID-19 situation. However, researcher found that Behavioral Intention to Use e-learning has a positive correlation and strong correlation with employee engagement during COVID-19 situation (0.6 > 0.656).

From three mediating variables, it shows that Behavioral Intention to Use e-learning has the most significant effect on staff engagement during the COVID-19 situation. Behavioral Intention to Use determines staff engagement during the COVID-19 situation, while Perceive of Usefulness and Perceive of Ease of Use e-learning do not determine staff engagement either before or during the COVID-19 situation. Although Perceive of Usefulness and Perceive of Ease of Use e-learning are felt to have no direct impact on staff engagement, this can affect Behavioral Intention to Use e-learning, which in turn leads to greater staff engagement with e-learning.

#### 6. DISCUSSION

The results of this study show, that there is no significant difference in the bank's staff engagement in using the e-learning before and during the COVID-19 situation. The results of this study are not in line with the studies that have been conducted by UDEMY, that employees who have spending more time in learning to use e-learning have a high engagement to the company. Although the number of e-learning uses increased during the COVID-19 situation, there is no significant difference with the level of employee engagement before the COVID-19 period. This is assumed because Bank is a fairly mature organization and has various initiatives undertaken to maintain a consistent or increasing level of engagement. In addition, the bank's openness in building a culture as a learning organization also needs to be considered, because during COVID-19 most of the sample can learn topics that are not mandatory in their work.

Int. J Sup. Chain. Mgt Vol. 9, No. 5, October 2020

However, what is interesting is the internal factors of TAM namely Perceived Usefulness, Perceived Ease of Use and Behavioral Intention to Use which turns out to have a correlation with employee engagement in the use of elearning both before and during the COVID-19 situation and the correlation is increasing when COVID-19. This is assumed to be due to changes in learning methods which require bank employees to use and be accustomed to using the e-learning platform due to the COVID-19 situation.

#### 7. Conclusion

This research attempts to provides insight for the organization especially in banking sector regarding staff engagement. It is relevant for the organization to have clear understanding weather their initiative or program to support learning and development for staff is still relevant by using e-learning. Organizations need to consider in long term plan whether they can update learning strategy where the use of e-learning is perceived to have uses and conveniences. Another implication of this study is for individuals, especially those who engaged in development of training modules. This practitioner can enrich the resources, ranging from mandatory (certification, technical, etc.) to nonmandatory (communication, professional development, etc.), because of there are significant interests from staff to increase their knowledge by learning materials that are not mandatory related to their job. Thus, by implementing elearning banks can increase the number of trainees, adjust learning topics to employee needs, be more flexible in time and provide broader learning opportunities for all employees [27].

Beside from the empirical methods that have been applied, this study has several limitations, one of them is the limitations of the banking workplace in this research. From this research it is shown that there is a strong relationship between employee interest to use e-learning and engagement. However, researchers must be careful in generalizing the results and there are still some things that can be improved for future research.

The first thing, the study used a non-random sample from one of the banks and the survey was obtained from the subject's responses. For improvement in the future it is necessary to collect larger samples using the random sample method. However, at the time this research was conducted, getting a larger sample size was out of reach.

In the future this research could be better if the researcher could increase the number of samples and the distribution of the samples more spread out.

Second, while this study using moderating variable from TAM (Technology Acceptance Model), namely Perceived Usefulness, Perceived Ease of Use and Behavioral Intention to Use; which have a relationship with employee engagement, it is important to recognize what factors both individually and organization affect this engagement. To answer this, further research and validation are needed, as well as more extensive research replication. Future studies can also consider other variables in order to generalize from the current findings.

Finally, in order to evaluate the research questions, in the future longitudinal studies can be carried out and in different timeframes and comparisons between banks. In order to provide more insight into the impact of e-learning on employee engagement in the banking workplace, especially in developing countries.

### References

- Altuna, Jon & Lareki, Arkaitz. (2015). Analysis of the Use of Digital Technologies in Schools That Implement Different Learning Theories. Journal of Educational Computing Research. 52. 183-204. 10.1177/0735633115597869.
- [2] Aon Hewitt (2015). Trends in Global Employee Engagement. Aon Hewitt.
- [3] Banerjee, I., Jacobson, R., Krivkovich, A., Libotte, G, and Rambachan, I. (2020), Shaping and safeguarding the banking workforce after COVID-19. https://www.mckinsey.com/industries/financial-services/our-insights/shaping-and-safeguarding-the-banking-workforce-after-covid-19#
- [4] Bersin J (2005) The four stages of e-learning: a maturity model for online corporate training. Bersin & Associates, Oakland, CA.

[5]

- [6] Bouhnik, D. and Marcus, T. (2006), Interaction in distance-learning courses. J. Am. Soc. Inf. Sci., 57: 299-305. doi:10.1002/asi.20277
- [7] Liaw, Shu-Sheng & Huang, Hsiu-Mei & Chen, Gwo-Dong. (2007). An activity-theoretical approach to investigate learners' factors toward e-learning systems. Computers in Human Behavior. 23. 1906-1920. 10.1016/j.chb.2006.02.002.
- [8] Dinç, İ.D, (2006) İşletmelerde eğitimin Önemi, http://www.enocta.com/web2/ContentShowOne.asp? CType=2&ContentID=284&T=5
- [9] Czarnecka, Aleksandra & Daróczi, Miklós. (2017). Elearning as a method of employees' development and training. 10.18515/dBEM.M2017.n01.ch09.
- [10] Chen, Kuan-Chung & Jang, Syh-Jong. (2010). Motivation in online learning: Testing a model of self-determination theory. Computers in Human Behavior. 26. 741-752. 10.1016/j.chb.2010.01.011.
- [11] Gutierrez, Karla. (2012). Boosting Employee Engagement Through eLearning.https://www.shiftelearning.com/blog/bid/2 36929/Boosting-Employee-Engagement-Through-eLearning
- [12] Jokic, Snezana & Pardanjac, Marjana & Eleven, Erika & Durin, Savina. (2012). Training and development of employees through e-learning. Metalurgia international. 17. 157-161.
- [13] Kavya, M.L., & Padmavathy, G. (2017). Employee Engagement: A Review on Engagement Models. Imperial journal of interdisciplinary research, 3.
- [14] Kimiloglu, Hande & Özturan, Meltem & Kutlu, Birgul. (2017). Perceptions About and Attitude toward the Usage of E-Learning in Corporate Training. Computers in Human Behavior. 72. 10.1016/j.chb.2017.02.062.

151

- [16] Noesgaard, S.S. & Ørngreen, Rikke. (2015). The effectiveness of e-learning: An explorative and integrative review of the definitions, methodologies and factors that promote e-Learning effectiveness. Electronic Journal of e-Learning. 13. 278-290.
- [17] Purnomo, Hadi & Lee, Yi-Hsuan. (2013). E-learning adoption in the banking workplace in Indonesia: An

Int. J Sup. Chain. Mgt Vol. 9, No. 5, October 2020

empirical study. Information Development. 29. 138-153. 10.1177/0266666912448258

- [18] Piccoli, Gabriele; Ahmad, Rami; and Ives, Blake (2001) "Web-Based Virtual Learning Environments: A Research Framework and a Preliminary Assessment of Effectiveness in Basic IT Skills Training," MIS Quarterly, (25: 4).
- [19] Raab, R.T., Ellis, W.W., and Abdon, B.R. 2002. Multisectoral Partnerships in E-Learning A Potential Force for Improved Human Capital Development in The Asia Pacific. Internet and Higher Education, 4:219–229.
- [20] Santoso, S. (2014). Statistik Non Parametrik. Edisi Revisi. PT Elex Media Komputindo. Jakarta.
- [21] Škrtić, M. M., Horvatinčić, K., & Tišma, S. (2012). Elearning in banking. Hrvatski časopis za odgoj i obrazovanje.
- [22] Suheriadi (2020). Dampak Covid-19, Perbankan RI Jauh Lebih Kuat Dibanding 1998: infobank.com.
- [23] Suminar, A. (2020). Dampak covid-19 terhadap ekonomi global 2020. surabaya: suarasurabaya.net.
- [24] Swan, K., (2003), Learning effectiveness: what the research tells us. In: Bourne, J., Moore, J. (Eds.), Elements of Quality Online Education 4, 12–45.
- [25] Untari R (2007) E-learning for MSME in Central Java, Indonesia, International Conference on E-learning for Knowledge-Based Society, November 18–19, Bangkok, Thailand.

[26]

- [27] Udemy for Business (2018). State of the ROI of Learning Report. https://business.udemy.com/resources/state-of-the-roi-of-learning-report/?mx\_pg=blog\_page\_hr-and-ld&locale=en\_US&ref=
- [28] Vaughan, N. (2004), Technology in support of faculty learning communities. New Directions for Teaching and Learning, 2004: 101-109. doi:10.1002/tl.137
- [29] Welsh, E.T., Wanberg, C.R., Brown, K.G. and Simmering, M.J. (2003), E-learning: emerging uses, empirical results and future directions. International Journal of Training and Development, 7: 245-258. doi:10.1046/j.1360-3736.2003.00184.x
- [30] Yardibi (2008), E-learning in Development (Case of a Turkish Bank), American-Eurasian journal of Scientific Research 3(2), 117-122.