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## Article

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## INFORMATION & TECHNOLOGY MANAGEMENT | RESEARCH ARTICLE

# Reinforcing learning organization by self-directed learning through massive open online courses: a lesson learned from Covid-19 pandemic

Samuel Ferdianto<sup>1</sup> and Rina Anindita<sup>1\*</sup>

**Abstract:** The process of learning in companies or adult learning continues to develop and change. It is necessary to make learning to be more relevant, accessible, and supporting work performance. On the other hand, there are a number of factors contributing to the implementation of impactful learning, learning organization, or self-directed learning. This study aims to analyse the relation between learning organization, motivation, self-management, MOOC self-monitoring, and self-monitoring as moderation of motivation and self-management toward retail/commercial industry employees who have accessed course or MOOC course in Indonesia at least once. This study was distributed via online to 273 retail employees in Indonesia for 4 months since December 2021 until March 2022. SEM PLS method is utilized during data processing stage. The result of this study supports four hypotheses proposed herein. Learning organization influences motivation in the self-directed learning of MOOC course. Motivation also influences self-management toward the MOOC teachers and so does motivation to self-monitoring toward MOOC learners, meanwhile self-monitoring mediates motivation with self-



Rina Anindita

### ABOUT THE AUTHORS

Rina Anindita is an Associate Professor from the Department of Management, Faculty of Economics and Business, Universitas Esa Unggul, Indonesia. Experienced as a lecturer in the field of management more than 20 years. Currently, research that is often carried out is research related to human resource management, human resource management strategies, organizational behaviour. In 2013, wrote a dissertation related to the Learning Organization, and since then many of her researches are related to the Learning Organization.

Samuel Ferdianto is a practitioner in the retail industry in Indonesia, a graduate alumni of the management department at Universitas Esa Unggul, Indonesia. Experienced in organizing MOOCs in several companies, especially MOOCs in the Retail industry in Indonesia.

### PUBLIC INTEREST STATEMENT

This research is interesting because training and learning models have undergone lots of changes; one of many aspects that promotes learning acceleration in adult learning and adaptation to the continuously changing situation can be developed through self-directed learning. Through self-directed Learning, one is encouraged to possess self-development pattern on the basis of personal motivation and needs to learn and develop. Motivation to self-development offers intrinsic benefit toward one's learning quality perceived in related to his work. It is necessary to build self-development in digital world to be even more accessible, massive, and in support of self-directed learning model which can be accommodated via Massive Open Online Course (MOOC) platform.

management. Motivation, self-monitoring, and self-management are key factors that describe self-directed learning highlighted in this study.

**Subjects: Employment Relations; Human Resource Development; Management of Technology & Innovation**

**Keywords: Learning organization; motivation; self-monitoring; self-management; self-directed learning**

## 1. Introduction

The process of learning in companies or adult learning continues to develop and change. Learning nowadays needs to be more impactful, easier to understand, more accessible, and is able to be implemented at any place at the same time (Wu, 2021). Learning culture in companies can be promoted through learning organization operating as knowledge transfer enhancement or training as company strategy to facilitate learning in both micro and macro level to further allow organization obtaining full advantage of the entire learning aspects (Weldy, 2009). This advantage does not only serve as source of competence and knowledge development, but also exist to transform companies through implementation of learning over a period of time, continuous learning, which encourages organization to keep improving (K. Kim et al., 2017). Appropriate learning organization and transfer of training are particularly significant in knowledge management of a certain organization (Weldy, 2009).

Training and learning models have undergone lots of changes, one of many aspects that promotes learning acceleration in adult learning and adaptation to the continuously changing situation can be developed through self-directed learning (Loeng, 2020). Through self-directed learning, one is encouraged to possess self-development pattern on the basis of personal motivation and needs to learn and develop. Motivation to self-development offers intrinsic benefit toward one's learning quality perceived in relation to his work (Maurer et al., 2003). It is necessary to build self-development in digital world to be even more accessible, massive, and in support of self-directed learning model, which can be accommodated via Massive Open Online Course (MOOC) platform (Zhu, 2021). In this model, learners are able to optimally absorb many interesting courses according to their learning scope and pattern through self-monitoring or self-management in the MOOC learning environment (Zhu et al., 2020). Online learning accessed by many people at the same time encourages individual to be responsible in completing the course, and this motivation positively influenced the success of online learning (L. Song & Hill, 2007).

Ju et al. (2021) found that Learning Organization positively influenced organizational performance and attitude. Employee attitude refers to organizational commitment, job satisfaction level, employee turnover, and work engagement. Meanwhile, performance includes financial, innovative, job, and knowledge. Irfan (2021) stated that the relationship of Learning Organization, which positively influences intrinsic motivation in learning, is closely associated with the extrinsic motivation seen in job of the relationship of knowledge in the organization. In other words, the dimension of Learning Organization has the power to influence learning motivation and job. Ju et al. (2021) also discovered that Learning Organization positively influenced employee motivation in learning. However, Cheng noticed this learning motivation exists specifically in the e-learning platform. In another study, Lemmetty and Collin (2020) found that Learning Organization in the form of workplace learning shows positive influence toward self-directed learning. Workplace learning as part of Learning Organization has been studied before by Sowath Rana Alexandre Ardichvili Daiane Polesello (2016) and the result demonstrates positive relationship toward self-directed learning. Through a different perspective, Anindita (2017) discovered a positive relationship between Learning Organization toward performance which involves learning opportunity, organizational structure, assistance to the learners or lecturers.

Zhu et al. (2020) revealed that positive relationship between self-directed learning elements, which include learning motivation, self-management, and self-control toward strategy in implementing courses on MOOC platform. Online learning through platform that is accessible at any time and massively such as MOOC is influenced by self-directed learning elements and learning strategy. On the other hand, K. Kim et al. (2017) identified how interactive design and strategy can bring out more optimum and positive learning outcomes in MOOC platform. In contrast, Fournier and Kop (2015) discovered through their recent study that online learning through MOOC presents certain charms and challenges to the learners, with a learning model which has switched from central instructor to a more open and independent learner. This means that the importance of independent self-development is supported by learning design. In another research, Zhu and Doo (2021) discovered the positive relationship between self-directed learning and learner's skills who use MOOC platform. In a study by Bonk and Lee (2017), a positive relationship is identified between self-directed learning and learning motivation, outcomes, and challenges in MOOC platform.

Zhu and Doo (2021) revealed that educational world needs to catch up with the speed of information, and learning development is required to be implemented massively and easily to later set it apart with the traditional learning method. This belongs to the self-directed learning which has to be complemented by appropriate methods or tools. Hence, MOOC or Massive Open Online Course is a platform or online learning media that is applicable for massive usage at the same time. This platform can be used along with the virtual training, blended learning, or online self-directed learning (Sidek et al., 2020). MOOC as a learning platform surely faces particular challenges, mainly in Indonesia's case, MOOC is not widely known yet to the people. This form of challenge can be studied from the perspective of implementation of technological adaptation, learning system plan, and from new learning method using MOOC platform or media. Yet, through appropriate design and learning motivation, as well as the influence of learning environment, MOOC delivers effective impacts to the learners with self-directed learning skills (Adair et al., 2014; Zhu, 2021).

However, many of the older studies regarding Learning Organization, self-directed learning, and online learning platform have been conducted. Focal point that highlights the difference between this study and those before is that there has not been a study that connects the correlation or role of Learning Organization toward learning motivation, self-management, and self-monitoring as part of the specific self-directed learning in MOOC platform, especially in the case of Indonesia. In Indonesia's context, e-learning as well as MOOC or LMS that can be more familiar for Indonesian learning practitioner, have big challenge to prove how these new methods and learning experience can help organizations be more agile, fast, massive in learning to elevate employee competencies in less cost and time. The traditional self-directed learning in previous year in Indonesia using paper regardless using internet or these kind of technology. The issues of adult learning transformation may occur almost on many business context in Indonesia. In retail business context, the gap and rapidity and speed to enhance employee competencies through e-Learning may become a big issue and challenge. The implementation MOOC could address the problem of fast delivery, less cost, more adaptive learning, and also agile content to deliver more accurate and massive at the same time. On the other hand, the transition through traditional into this new kind of approach may challenge shareholder belief how this new approach can really useful and impactful for organization, as simple how MOOC can help to address this context. Based on this gap of knowledge and issues, the purpose of this study is to offer explanation regarding the influence of Learning organization toward learning motivation, self-management, and self-control in learning through MOOC platform.

## 2. Literature review

### 2.1. Learning organization

Learning Organization is a term popularized by Peter Senge (1990) which refers to "a place where people continuously expand their capacity to create desired results, where patterns of thinking are

nurtured, and collective aspiration is set free, and where people continuously learn together.” Senge proposed a framework of learning organization in the form of five disciplines, which consist of five basic elements for successful learning organization: (1) systems thinking, (2) personal mastery, (3) mental models, (4) shared vision, and (5) team learning.

Watkins and Marsick elaborated a model of learning organization which integrates two crucial elements of organization: people and structure. Both elements are viewed as key components in organizational change and development (Davis & Daley, 2008). Seven vital components in Watkins and Marsick model of organization are as follows: Continuous learning, Inquiry and dialogue, Team learning, Embedded system, Empowerment, System connection, and Strategic leadership. They presented a concept that learning organization promotes innervational capacity and organizational growth. Learning organization encourages continuous learning, thus creating a sustainable change through dialogue and practice, as well as strategy that has been integrated with system approach and implementation in the work field. They concentrated in the supporting the environment that encourages or motivates the whole process of learning (J. H. Song et al., 2009). These model can be suitable for the context of the study that mainly aims at how these study can also help the organization examine the criteria of how further learning development, and on the other hand, to reach how the transformation recommendation through more wide criteria helps the organisation unique context.

In many cases, Learning Organization and Organization Learning are understood differently. This understanding needs to be disintegrated from its utilization and learning process (Jensen, 2005). Organization Learning refers to the collective process involving the transformation of personal knowledge into collective knowledge (Huysman, 2000). Vera and Crossan (2004) voiced out similar perspective that Organization Learning refers to the process of collective learning activity through shared vision and attitude. By considering this perspective, Learning Organization implies a learning space involving various elements for a sustainable and joint learning, different from Organization Learning which accentuates more on the collective learning process.

## **2.2. Self-directed learning**

Self-directed learning is a learning approach which shapes learners to be responsible of their own course, hence they are actively engaged and able to independently manage their own learning process (Bosch & Goede, 2019). Self-directed learning is in fact a central concept in the practice of adult education. One of the aims of self-directed learning in adult education or learning is to obtain particular knowledge or skills, as well as other aim, namely, to improve learner’s capability in directing themselves to develop during their learning process (Ellinger, 2004). There are various types of self-directed learning approaches and models.

Knowles (1975) explained that self-directed learning is a proactive attitude and implemented by taking initiatives in learning as a reactive learner instead of passively waiting to be taught. According to Hiemstra (1994) and Brookfield (1986), self-directed learning is a process where learner is responsible of their own learning planning, implementation, and evaluation, and is expected to work independently or with other people to achieve the purpose of learning. Self-directed learning also embodies an understanding as a way of life of someone who needs to come to a decision of learning outside of his formal education environment (Du Toit-Brits, 2018). Garrison (1997) defined self-directed learning as an approach where learner is motivated to hold a personal responsibility and collaborative control of cognitive process (self-monitoring) and contextual process (self-management) in establishing and ensuring meaningful and valuable learning outcomes (Garrison, 1997). Garrison puts an emphasis on the self-management and intrinsic-extrinsic motivation that allow learner to elaborate the course independently and socially.

Various types of understanding method of the self-directed learning are developed and evaluated in accordance with its purpose and functional scope. The model by Long suggests four quadrants of self-directed learning which focus on two large criteria, namely, pedagogical control



(learning) and psychological control. A few years later, Candy proposed a different model with two approach focuses on the dimension of process and learning outcomes. Dimension of process involves self-control and self-taught attitude in learning, while dimension of learning outcomes concentrates on the self-independence and self-management. Hiemstra (1994) and Brookfield possess wider capital, by paying attention to the individual responsibility which correlates to the self-motivation, management of self-directed learning, and self-directing. Garrison (1997) concentrates on how motivation influences self-management and self-monitoring. Oswalt develops a wide concept of self-directed learning by dissecting his model into nine key concepts: opportunity, support, collaboration, motivation, context, cognitive skills, skill with content, skill with self-directed learning, and willingness to control one's own learning. Based on the above explanation, self-directed learning can be defined as motivation or self-control function in managing one's own learning.

However, there are so many literatures and approach for understanding self-directed learning; the author tends to choose the Garrison model that suits the context to examine how learning situation in Indonesia and how the readiness of organization itself and employee that mostly reflected to garrison model. However, the author provides the comparison model to give an overview on the horizon of the decision of the study. The comparison of this approach and model are summarized in the following table (Bosch & Goede, 2019):

### 2.3. MOOC

MOOC is an online learning platform or media that can be utilized massively at the same time. This platform can be used along with the virtual training, blended learning, or self-directed learning (Sidek et al., 2020). Nowadays, this platform is widely used from all over the world by many learners of educational institutions, non-profit governmental organizations (NGOs), corporate companies, or education service providers. This is possible since it can be used massively and easily, which further sets it apart with traditional learning method (Zhu & Doo, 2021). Vision embedded in utilizing MOOC as a learning media is to make learning that is easy to access by many people and employ the role of technology in learning to assist learners further in understanding and accessing abundant knowledge (Conole, 2015). MOOC has become such a breath of fresh air in the sphere of learning and education as it is capable to link many people in a particular course or online learning module to be accessed together (Saptayana et al., 2021).

MOOC as a learning platform often experiences challenge in the case of utilization, starting from technological adaptation, learning systems, learning structure and contents, or motivation and volition for self-directed learning using MOOC media. In this context, MOOC becomes crucial and effective for learners who possess self-directed learning skills (Adair et al., 2014; Zhu, 2021). MOOCs are concentrated on the learning achievement for the right learners in a more open and easier pedagogical framework to be used at the same time (Fournier & Kop, 2015). In a more generally known context, MOOC platform is usually accessed on an online website in what is called as course, with Moodle or basic form of Learning Management System (LMS) platform. We can take a few examples in Indonesian context, such as Kampus Merdeka, IndonesiaX sites, and Dicoding (Harijanto et al., 2021).

There are various types of MOOC; in Indonesia as the context of this study, this study aim to highlight the type of MOOC specially on LMS or Moodle system and e-learning system related to massive open courses. These concerns of adult learning development spread out in the horizon of vary business scope, education, private business, public business and various horizon of business in Indonesia. Pandemic brought a drive and trigger for adult learning practitioner to develop its own LMS to enhance their learning capabilities and also learning challenge during pandemic regulation. This is may become critical tools or media that heal learning development within organization to transform and elevate their people competencies in disturbed times as pandemic and also for future option and sustainable adult learning methods and experiences. Thus, this study focuses on the usage of MOOC in the context of Self-Directed Learning that includes

learner's motivation, learner's self-monitoring, and learner's self-management. These study would be vital for future development of adult learning methods and experience for specifically organization in Indonesia context. Thereby, note merely MOOC as methods and tools, this study also examines how MOOC can help learner's self-directed learning and how MOOC can be related to Learning Organization.

### **3. Relationship between variable and hypothesis development**

#### **3.1. Relationship between learning organization and motivation on MOOC Learners**

According to Kamaruddin et al. (2014), learning organization and learning motivation are highly important factors in managing and preserving knowledge for a learner. Learning Organization is a space or environment in a certain organization that puts organization in a continuous growth and learning process. In the Learning Organization framework by Warsick & Marsick who dissected the understanding of Learning Organization into seven major pillars enlighten continuous learning process supported by collective learning and infrastructural system that endorses a Learning Organization to be implemented. Learning Organization is capable of developing and encouraging learners to obtain perpetual knowledge and learning to enhance learning and knowledge capacity (K. Kim et al., 2017).

Islam (2019) emphasized that Learning Organization, particularly dimension of continuous learning, imparts positive impacts on learning motivation and disseminates enlightenment or knowledge. In another research, Irfan (2021) elaborated that Learning Organization influences employee's motivation, especially intrinsic motivation to learn in work field and extrinsic motivation to improve performance. Furthermore, Learning Organization positively influences learning motivation in self-directed learning which in turn also influences the quality of learning (Kamaruddin et al., 2014). Hence, it can be inferred from the research that Learning Organization has a positive influence on learning motivation in Self-Directed Learning.

**H1:** *Learning Organization influences Motivation in Self-Directed Learning of MOOC learning.*

#### **3.2. Relationship between motivation and self-management toward MOOC learners**

Ibrahim and Jaafar (2017) discovered a relationship between learning motivation and self-management in a positive learning. In line with this, Zhu et al. (2020) examined the relationship between learning motivation and self-management, as well as self-monitoring on Garrison model by considering changes in the learning paradigm with MOOC as an online learning media that is accessed collectively. In this study, motivation is a complex and multifaceted part influenced by its learners or contexts. Motivation is found to be positively affecting self-management of the online self-directed learning, which has the credibility to be used as a reference to the development of online learning model in the future. Self-management motivates learners to manage courses according to their personal needs and contexts. Both intrinsic and extrinsic proficient learning motivation will endorse self-management in learning process, thus making knowledge easier to access and absorb (Zhu & Doo, 2021). Referring to the said research, it can be concluded that learning motivation positively influences self-management in MOOC learning.

**H2:** *Motivation influences Self-Management toward MOOC learners.*

#### **3.3. Relationship between motivation and self-monitoring toward MOOC learners**

Abd-El-Fattah (2010) analysed the relationship between learning motivation on the model introduced by Garrison (1997) in the Egypt study case which stated that motivation positively



influences self-monitoring and self-management in online learning. This discovery also suggests that learners who possess learning motivation indicate that they have become more effective and efficient in self-directed learning strategy so that it is easier to access and utilize their knowledge; thus, this self-motivation is the one promoting one's self-management during his learning process. Guo and Bai (2019) discovered that learning motivation influences self-monitoring in learning. People classified as "High Achiever" tend to have high motivation and influence the pattern of self-management in their learning process; on the contrary, people under category of "Low Achiever" tend to have lower influence upon the motivation that affects self-management in learning process. Zhu (2021) found a positive relationship between motivation in self-directed learning and self-monitoring via online learning using MOOC. Hence, it can be concluded that motivation positively influences self-management toward online learners (MOOC).

**H3:** *Motivation influences Self-Monitoring toward MOOC Learners*

### **3.4. Self-monitoring mediates the relationship between motivation and self-monitoring toward MOOC learners**

Zhu et al. (2020) learned that self-monitoring dimension is vital in self-directed learning model by Garrison (1997). It refers to self-awareness and self-assessment on the learning process involving learning management based on the context and needs. This skill is particularly vital and essential to MOOC online learners since their self-independence and self-monitoring responsibility can promote a learning atmosphere that supports learning process. Self-independence and responsibility are stimulated positively from learner's motivation as well as the context that comes along with it. Therefore, it can be inferred that self-monitoring positively influences and mediates learning motivation and self-management in online self-directed learning.

**H4:** *Self-Monitoring mediates Motivation with Self-Management toward MOOC Learners*

## **4. Research framework**

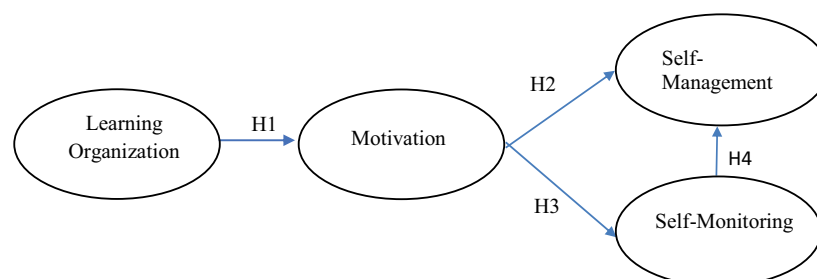
Based on the relationship between variables and the hypotheses that are formed, the model in this study is like in figure 1.

## **5. Research method**

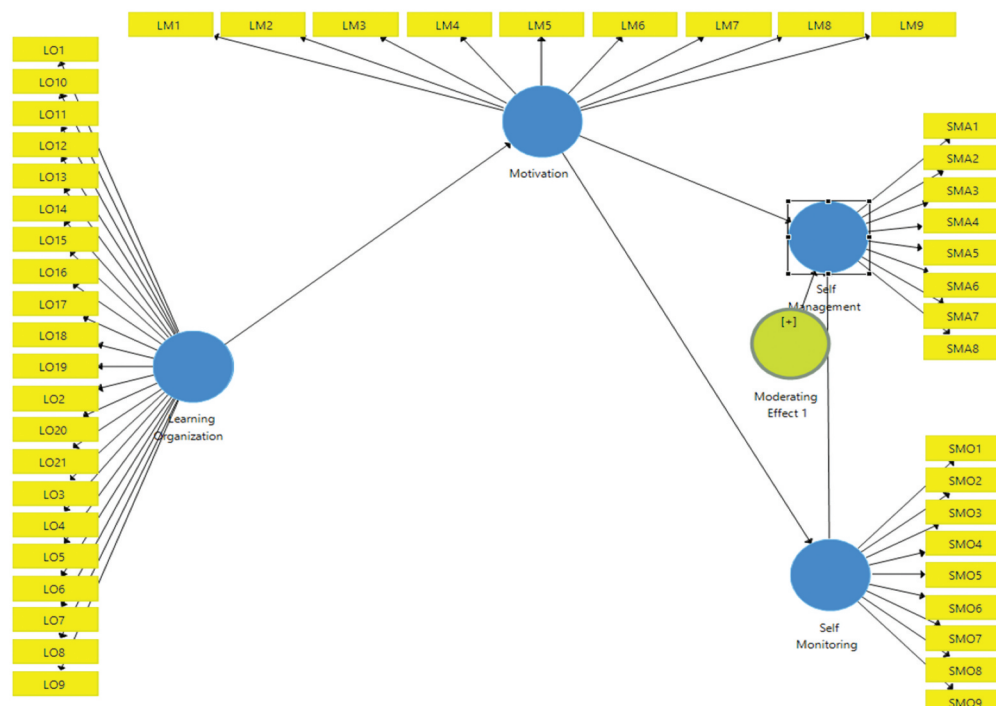
### **5.1. Measurement**

This study measures variables of learning organization and motivation, self-management, and self-monitoring. The measurement of Learning Organization is based on a study by Watkins and Marsick which underwent recent adaptation into DLOQ (Dimension of Learning Organization Questionnaire) measurement tool through seven criteria of Watkins and Marsick Learning

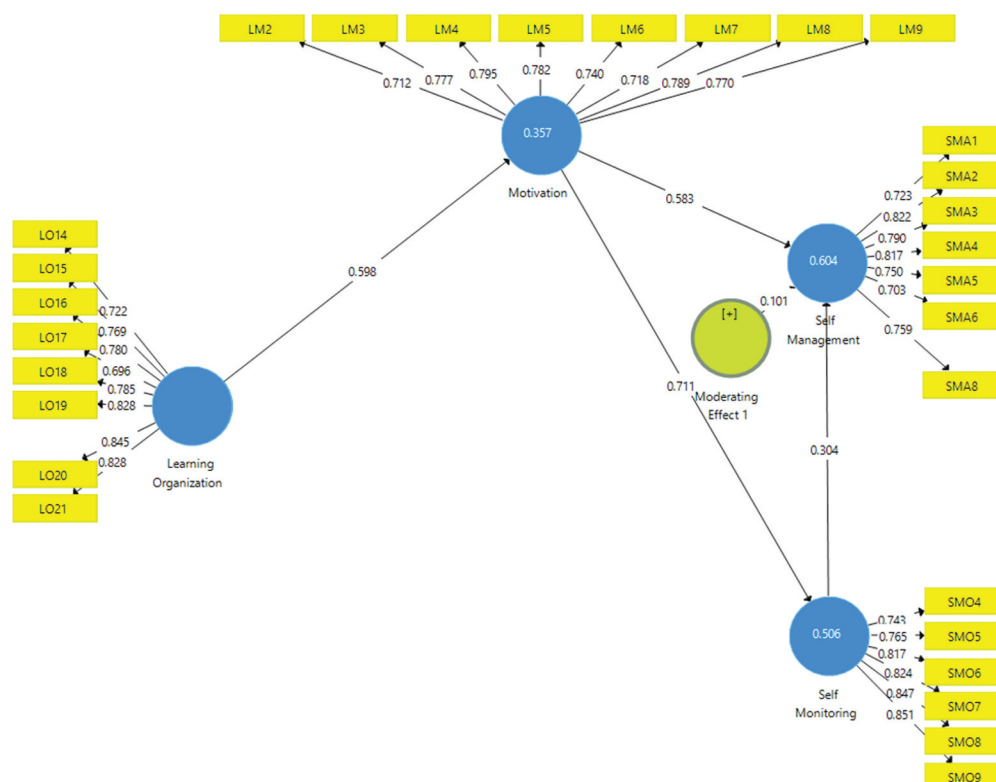
**Figure 1. Research Model.**



**Figure 2. PLS-SEM research model.**



**Figure 3. PLS-SEM output display.**



Organization model framework (Leufvén et al., 2015). The measurement is based on Continuous learning, Inquiry and dialogue, Team learning, Embedded system, Empowerment, System connection, and Strategic leadership comprises 21 questions. Recent adaptation into DLQQ taken by this study to portray how learning organization variable includes how organizations examine thoroughly the criteria of its own learning organization. On the other hand, these adaption also related to the current context of Indonesia organization portrait.

The succeeding variable is measured by Self-Rating Scale of Self-Directed Learning (SRSSDL) adapting Self-Directed Learning model by Garrison which measures three main criteria, namely motivation, self-monitoring, and self-management (Abd-El-Fattah, 2010). These SRSSDL scale used as well as these adaption model on previous study suit in Asian context, as well as in Indonesia. Motivation variable based on SRSSDL scale is measured by referring to the willingness to learn, which consists of nine questions. Self-management variable based on SRSSDL scale is measured through eight questions. Self-monitoring variable is also done based on the SRSSDL scale referring to self-management dimension which contains nine questions. The number of questions featured in this study are 47 in total. According to the result of pre-test data for learning organization variable from the total of 21 questions, only 8 questions are deemed to be valid and reliable, 8 out of 9 total questions for motivation variable, 7 out of 8 total questions for self-management variable, and 6 out of 9 questions for self-monitoring variable. Hence, following the pre-test analysis, only 29 out of 47 total questions are deemed to be valid as questionnaire of this study, where the value of KMO and MSA  $> 0.5$  and Cronbach's alpha  $> 0.6$ .

## 5.2. Participants

Research population refers to the private employees who has accessed the openly massive MOOC-based or LMS-based online learning at least once; employees in retail or commercial industry in Indonesia, considering the fluctuating and dynamic development of retail industry, relevant and massive learning has appeared to be highly needed as explained in the background research. Research samples are taken using Purposive Sampling method. It utilizes criteria determined by the researcher in selecting samples to obtain the desired purpose of the research (Lenaini, 2021). Sample criteria in this research is an employee who has completed one package of learning or course at minimum. Research participants will be given a questionnaire via online links which comprises four pages of survey designed based on the research variables and distributed since December 2021 until March 2022. According to Structural Equation Model (SEM) as the analysis tool to determine the minimum amount of representative sample, the amount of sample must be five times more than the amount of question to be analysed (Hair et al., 2013). There are 47 questions in this research questionnaire, thus the minimum amount of sample needed is 235 respondents. Respondents gathered in this study are 273 in total and have all completed the questionnaire given.

## 6. Method

This study begun with validity test using dimension reduction factor analysis by examining the value of Kaiser-Meyer-Olkin measure of sampling (KMO) and measures of sampling adequacy (MSA). KMO value is acceptable if it reaches beyond the minimum limit of 0.5; meanwhile, MSA value on the anti-image correlation is required to be  $\geq 0.5$  (Hair et al., 2013). The hypothesis testing is implemented using causality method to study the relationship between variables. SEM serves as the analysis tool. Data measurement method uses the Likert scale with intervals of one to five. Data processing method utilizes SEM PLS through smart PLS software. Data collected by questionnaire that spread out during November 2021 to March 2022 to retail organization collaborate with HR and direct giving questionnaire as well as the criteria of purposive sampling. The sampling design was carried out on three largest retail organization in Indonesia that already have LMS or MOOC as well as mention on the study context. These concern aim the portrait of retail industries in Indonesia that correlate to the aim of the study itself. These three big retail companies, that is MAP, KLG, and Erajaya, also already implemented LMS or MOOC, so the employee have more experiences using MOOC for their own adult learning development for its own organization's need and context. These situations may reflect how the participant familiarize with the questionnaire

and the data mining of questionnaire can be more wide and valid for the aim of study. After the sample was collected and analysed for further study on data collection, the questionnaire spread out to another retail companies that had already implemented MOOC. The author worked together with the destined organization to gather all the questionnaire during the time collection.

## 7. Result

The questionnaire was filled out by 273 respondents consisting of 178 male respondents and 95 female respondents. These 273 respondents were employees who work in the retail or trade industry and who have completed at least one package of learning or course. Based on the data, as many as 167 respondents (61%) were in the age of 20–30 years. The majority of respondents were undergraduate (S1) with a total of 184 respondents (67 %). Meanwhile, as many as 120 respondents (44%) had worked for more than 5 years. The data show that as many as 83 respondents (30%) used MOOC actively for more than 24 months, with 75 respondents (27%) using an average course access (2–5 courses).

Before testing the hypothesis, the test of measurement model was carried out to measure the indicators and latent variables. Tests in this research include the test of construct validity consisting of convergent validity, discriminant validity, and average variance extracted (AVE). This stage is carried out by assessing convergent validity, a measurement of the validity of the reflexive indicator, as a measure of the variable by considering the outer loading value of each variable indicator (appendix 6.1). Validity and reliability tests can be done by designing the outer model or measurement model. An indicator is declared as a valid indicator if it has a factor loading value (original sample value) of  $>0.6$  and a P-values (probability) of  $<0.05$ . Factor loading and t statistics from the test results show that only six statements of the learning organization variable are declared valid from a total of 21 statements. Meanwhile, only eight statements of motivation variable are declared valid from a total of nine statements. In the self-management variable, only seven statements are declared valid from eight statements while only six statements are declared valid from nine statements for the self-monitoring variable. Based on these data, the explanation of the model is as follows on figure 2 and figure 3:

The next stage is to measure the discriminant validity of the reflexive indicator which can be seen in the cross loading between the indicator and its construct. The measurement of discriminant validity is done by comparing the AVE of each construct with the correlation of the construct and other constructs in the model. The model is considered to have a fairly good discriminant validity if the AVE value for each construct is greater than the correlation of other constructs. The value of AVE that meets the requirements has been set namely  $\geq 0.5$  and the discriminant validity value is  $>0.6$ . The AVE values are used to determine whether the average variance on the indicators in each variable is homogeneous or not. The process involves analysing of the construct reliability test of the research variables using the internal consistency method. The results of the reliability test are used to determine whether the indicators of all research variables are good constructs or not to form a latent variable. As a result, the value of Cronbach's Alpha on Learning Organization variable is 0.910 with a Composite Reliability value of 0.927. The value of Cronbach's Alpha on Motivation variable is 0.896 with a Composite Reliability value of 0.917. The value of Cronbach's Alpha on Self-Management variable is 0.883 with a Composite Reliability value of 0.909. The value of Cronbach's Alpha on Self-Monitoring variable is 0.894 with a Composite Reliability value of 0.919.

Based on the previous information, as seen on table 1, the variable of construct reliability in this research can meet the requirements by showing the value of Cronbach's Alpha and Composite Reliability of all research variables of  $>0.7$ , according to the suggested value of  $>0.6$ . The AVE value and discriminant validity on all variables in this research have met the requirements and are homogeneous because the AVE value is  $>0.5$  and the discriminant validity value is above  $>0.6$ . Thus, all variables are declared valid. The AVE value of the Learning Organization variable is 0.613 and the Discriminant Validity value is 0.783. The AVE value of the Motivation variable is 0.579 and

the Discriminant Validity value is 0.761. The AVE value of the Self-Management variable is 0.589 and the Discriminant Validity value is 0.767. The AVE value of the Self-Monitoring variable is 0.654 and the Discriminant Validity value is 0.809.

To determine the relationship between constructs, it is necessary to look at the significance value and R-square value of the research model. The output result of the R-square value of the Motivation variable is 0.357, which means that the Motivation variable is influenced by the variables of learning organization, self-management, and self-monitoring by 35.7%. The R-square value of the self-management variable is 0.604, which means that the self-management variable is influenced by the variables of motivation and self-monitoring by 60.4%. The R-square value of the self-monitoring variable is 0.506, which means that the self-monitoring variable is influenced by the variables of motivation and self-management by 50.6%.

Apart from the R-square calculation, the measurement of the inner model can be done by the analysis of path coefficients to see the relationship between the research variables and the proposed hypothesis. The complete result of the hypothesis testing is as follows:

Based on the test results of the Path Coefficient and Indirect Effect as shown in the tables above, the hypothesis testing of the research model can be presented as follows:

Based on Table 2 and 3 above, the first hypothesis (H1) shows that learning organization has a positive and significant effect on motivation so that it can be said that the data supports the hypothesis because the Tcount value is  $14.365 > 1.960$  or the P values is  $0.000 < 0.005$ . The second hypothesis (H2) shows that motivation has a positive and significant effect on self-management so that it can be concluded that the data support the hypothesis because the Tcount value is  $7.639 > 1.960$  or the P values is  $0.000 < 0.005$ . The third hypothesis (H3) shows that motivation has a positive and significant effect on self-monitoring so that it can be said that the data supports the hypothesis because the Tcount value is  $17.875 > 1.960$  or the P values is  $0.000 < 0.005$ . The fourth hypothesis (H4) shows that Self-Monitoring acts as a mediation of motivation and self-management has a positive but not significant effect because the Tcount is  $2.774 > 1.960$  or the P values is  $0.006 < 0.005$ . From this analysis, it can be shown that the Self-Monitoring variable mediates motivation with self-management.

The next step is to check the effect of self-monitoring as a mediation of motivation and self-management by assessing the indirect effect in the process of the PLS SEM method. The full result is shown in the following table 4 and table 5:

From the Table 4 above, the Self-Monitoring variable mediates Motivation and Self-Management significantly because the Tcount is  $2,959 > 1.960$  or P values is  $0.000 < 0.003$ . Furthermore, in the indirect effect analysis, the influence of self-monitoring as a mediation of motivation and self-management is reanalyse with the influence of Motivation variable on the Self-Management variable directly, the result of which have a positive and significant effect because the Tcount value is  $5.921 > 1.960$  or the P values is  $0.000 < 0.000$ . From this analysis, it can be seen that the Self-Monitoring variable acts as a non-full mediation or partial mediation, which means that the

**Table 1. AVE & discriminant validity**

	<b>Average Variance Extracted (AVE)</b>	<b>Discriminant Validity</b>
Learning Organization	0.613	0.783
Motivation	0.579	0.761
Self-Management	0.589	0.767
Self-Monitoring	0.654	0.809

**Table 2. Test results of the research hypothesis (path coefficient)**

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Learning Organization -> Motivation	0.598	0.605	0.042	14.365	0.000
Moderating Effect 1 -> Self-Management	0.101	0.100	0.036	2.774	0.006
Motivation -> Self-Management	0.583	0.594	0.076	7.639	0.000
Motivation -> Self-Monitoring	0.711	0.715	0.040	17.875	0.000
Self-Monitoring -> Self-Management	0.304	0.291	0.096	3.178	0.002

**Table 3. Test results of the research hypothesis on indirect effect**

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Learning Organization -> Motivation -> Self-Management	0.348	0.360	0.057	6.099	0.000
Learning Organization -> Motivation -> Self-Monitoring -> Self-Management	0.129	0.125	0.039	3.302	0.001
Motivation -> Self-Monitoring -> Self-Management	0.216	0.206	0.063	3.429	0.001
Learning Organization -> Motivation -> Self-Monitoring	0.425	0.433	0.042	10.129	0.000

presence or absence of Self-Management will not give impact to the Motivation variable in affecting Self-Management variable. In Table 4 above, it can also be seen that the strong relation of this research is reflected in the influence of learning organization variable on Self-Monitoring through Motivation in a positive and significant way because the Tcount value is  $11.396 > 1.960$  or the P values is  $0.000 < 0.000$ .

## 8. Discussion

The results of the study show that there is a positive influence of learning organization on motivation, which means that learning organization supports the employees of retail/trade industries who have accessed MOOC as it gives positive effects on the employee self-directed learning motivation. Thus, if the work environment of retail employees in Indonesia supports the implementation of a good learning organization, it will encourage these employees to have good self-directed learning motivation. This is in line with Irfan's research (Irfan, 2021) which states that



**Table 4. Result Recap of the research model hypothesis**

Hypothesis	Relation	T Statistic (1,96)	P Value (0,005)	Conclusion
I	There is a positive influence between learning organization and motivation	14.365	<b>0,000</b>	Data support the Hypothesis
II	There is a positive influence between motivation and self-management	7.639	<b>0,000</b>	Data support the Hypothesis
II	There is a positive influence between motivation and self-monitoring	17.875	<b>0,000</b>	Data support the Hypothesis
IV	Self-monitoring acts as a mediation of motivation and self-management	2.774	<b>0.006</b>	Data support the Hypothesis

**Table 5. Research results of the indirect effect**

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Learning Organization -> Motivation -> Self-Management	0.328	0.340	0.064	5.153	<b>0.000</b>
Motivation -> Self-Monitoring -> Self-Management	0.211	0.200	0.071	2.959	<b>0.003</b>
Learning Organization -> Motivation -> Self-Monitoring	0.455	0.458	0.040	11.369	<b>0.000</b>
Learning Organization -> Motivation -> Self-Monitoring -> Self-Management	0.129	0.122	0.044	2.919	<b>0.004</b>

Watkins and Marsick's theory of learning organization, especially in terms of learning opportunities and organizational commitment, best supports the strong learning motivation, which will eventually encourage employees to learn independently and online more optimally. Furthermore, the finding that role of a strong learning organization will support employee motivation to learn independently is also in line with the research of (Davis & Daley, 2008; Kamaruddin et al., 2014; L. Song & Hill, 2007; Vera & Crossan, 2004) which underlines that a good learning organization will trigger employees to have an independent learning motivation as a form of independent responsibility which is very important for knowledge management in an organizational context. Online independent learning may not be as easy as MOOC learning. However, if the learning environment is supportive, the learning motivation will grow. This absolutely can counter the difficulties in independent online learning. This is possible because self-directed learning motivation is a responsibility in adult learning to assess on what the employees have done and determine what they want to develop.

The results of the study show that there is an influence of motivation on self-management to the employees of retail/trade companies in Indonesia who have accessed MOOC. This indicates that self-directed learning motivation will encourage independent learning management in MOOC learning. Strong self-directed learning motivation will enable an independent learner to do learning management better. The study indicates that the existence of a strong learning motivation of the retail employees in Indonesia will encourage better self-directed learning management. The independent learning process using MOOC tends to present several learning topics at once in one course or learning title. The learners learn in various forms, such as lectures, quizzes, discussion forums, and other types of learning. This set of learnings requires optimal learning management to achieve learning completion and give benefits for the learners. Strong learning motivation will encourage someone to have better learning management as mentioned earlier. This is in line with the research of (Abd-El-Fattah, 2010; Zhu, 2021) which emphasizes that strong motivation will encourage a learner to manage independent learning. This is a very important aspect in MOOC learning so that by using MOOC a learner is able to complete and set his own learning targets. Independent learning management can also be seen as an extrinsic factor in learning that can determine learning strategies for the learners. Encouragement or motivation to learn can be a catalyst in the strategy of self-directed learning management.

The results also show that there is an influence of motivation on self-monitoring of the employees of retail/trade industries in Indonesia who have accessed the MOOC. This indicates that self-directed learning motivation will encourage independent learning supervision in the context of MOOC learning of the employees. The results of this study also show that the influence of motivation on self-monitoring of retail/trade industry employees in Indonesia has the strongest influence of the research, so it can be referred to as a further review that the influence of self-directed learning motivation on the independent learning supervision is important. The idea of the results of this study is in line with (Zhu & Doo, 2021; Zhu et al., 2020; Zhu, 2021), which revealed the impact or effect of motivation on self-control and self-management, that motivation directly affects self-monitoring and indirectly affects self-management through self-monitoring. It means motivation affects the cognitive and metacognitive strategies of learners which eventually affects the action or learning patterns of the learner. Independent learning motivation can affect a person's independence in controlling, monitoring the extent to which learning has been carried out, and the desire or urge to learn further. Independent supervision is an important point in independent learning in the context of employees in a company because when employees do independent learning, the company does not fully have control over the learning. However, the learning undertaken must have good results. This vital point emphasizes the importance of self-directed learning motivation which is in line with the concept of responsibility in self-directed learning supervision. This is in accordance with (Bosch & Goede, 2019) who emphasized the important points of the concept of Self-Monitoring. In Garrison's version of independent learning, this independent supervision relates to the learner's personal responsibility which refers to a person's ability to monitor the progress of his own learning under his responsibility to create understanding and meaning for what he is learning. Good self-directed learning motivation will create a pattern of responsibility and it is a vital part in monitoring independent learning. In the context of online learning such as MOOC which is massive and accessed together at the same time, learning motivation and independent supervision are important to help learners achieve relevant meaning and impact. Strong learning motivation will enable a learner to be responsible in supervising his own independent learning.

Apparently, the interesting part of results of the study is that self-monitoring acts as a mediation variable between motivation and self-management for the employees of the retail/trade industries in Indonesia who have at least accessed MOOC, even though the role is not really significant. Zhu et al. (2020) stated that this independent supervision will encourage the relationship between learning motivation and the learners' learning management, but indirectly affects the strength of the learning supervision or monitoring in independent learning. Independent learning monitoring or supervision will encourage instructors or learners to get more precise and appropriate learning

patterns, so that more in-depth learning references can occur. This opinion is in line with Bonk and Lee (2017); D. Kim et al. (2021) statement that this self-monitoring can encourage or help learners to be aware and able to find informal learning resources independently that are suitable for them and will ultimately motivate their learning. Learning motivation which will ultimately facilitate and energize meaningful and sustainable learning will be optimal if it is supported by learning supervision and good self-management in their learning.

The results also show that good learning motivation will affect self-monitoring well so that learners can manage independent learning optimally. In other words, good self-monitoring will have a positive effect on the self-management of the employees of retail/trade industries in Indonesia who have accessed MOOC.

## 9. Conclusion

This research is narrowed down to several conclusions. First, employees whose work environment supports a good learning organization will have high learning motivation. Second, independent learning management of MOOC will increase with strong learning motivation. Third, good self-directed learning supervision of MOOC is supported by a supportive learning motivation. Fourth, self-monitoring mediates motivation and self-learning management of MOOC, but it is not very significant for learners in the post-pandemic era and retail employees in Indonesia. Thus, the results of this study can be used as a reference for further research to identify other factors that influence self-directed learning motivation and appropriate mediation to support independent learning on the MOOC platform, leading to better new research models.

### 9.1. Managerial Implications

The purpose of this research was to find the relationship between learning organization and motivation as well as self-management and self-monitoring in MOOC learning for retail employees. The conclusion of the research shows that there is a strong influence between learning organization and learning motivation which influences the supervision of good and optimal independent learning and ultimately encourages good learning management. In this post-pandemic era, retail employees are encouraged to do good independent learning in terms of learning motivation, learning management, and learning supervision which is supported by a good learning organization. This indicates that learning motivation can be achieved or fostered if the company supports learning organization of the employees. Leaders in companies should pay attention to factors that can encourage the formation of a good learning organization and learning motivation. By facilitating this, the employees are able to improve their abilities and competencies through adult learning in their supportive organizations and will help the company survive in the midst of tactical and strategic competition. The concept of Watkins and Marsick describes a learning organization model that integrates two important parts of the organization, namely employees and structure, both of which are considered as key components in organizational change and development (Davis & Daley, 2008). There are seven important components in the Watkins and Marsick organizational model: Continuous learning, Inquiry and dialogue, Team learning, Embedded system, Empowerment, System connection, and Strategic leadership. Leaders can review the condition of learning organization in their companies with the seven components of Watkins and Marsick learning organization model which were also used in this study. In other words, organizational leaders need to check whether their current organization supports continuous learning motivation, approaches and dialogues in the dynamics of employee development, team learning opportunities, qualified learning system, team building and development, as well as a leadership strategy that recognizes that learning is important. These things can optimize and at the same time become a strategic assessment benchmark for the leaders in the organization to conclude how far the implementation of organizational learning in the organization has been.

A good learning organization will encourage individual motivation in the organization to develop further. The next challenge is that this motivation is an extrinsic motivation because the learning organization drive is an external drive for employees in the organization. However, it does not

mean that there is no tactical way to overcome this matter. The management of the learning organization part five and seven, namely Empowerment and Strategic Leadership, encourages leaders to provide the right development program for the team personally. These efforts aim to give them an intrinsic drive to develop which will ultimately affect their self-directed learning. In other words, although organizational learning has a greater effect on the extrinsic motivation, the role of organizational leaders can be a catalyst to convert the influence into intrinsic motivation which will further nurture employees in the organization to develop themselves optimally. Thus, it will impact on increasing competence and lead to the competitiveness of the organization. The growth of intrinsic motivation can be seen from someone who has been able to determine learning patterns, learning objectives, correlate their learning with job description, have personal responsibility, and have the willingness and commitment to learn, as investigated in this study. This can also be a tactical formula for leaders to foster learning motivation in their team members.

This condition will be optimal if company leaders play an active role in creating a learning organization that is appropriate, relevant, and adequate in an effort to encourage employees to have a good independent learning space. Learning motivation, learning supervision, and learning management will also increase along with the learning organization. Based on the results of the study, a good learning motivation will affect self-monitoring well. Therefore, employees can manage independent learning optimally. In other words, good self-monitoring will have a positive effect on learner's self-management. For this reason, a work environment that supports learning, a system that encourages employees to actively learn independently, encouragement from leaders to their team, and openness in the team learning and development are significant concerns of the relation between learning organization and independent learning.

Self-directed learning in the concept of adult learning for employees is important to accommodate employees and the latest industry challenges. Learning through MOOC allows online learning system that can be used simultaneously at the same time. MOOC acts as a learning media that is easily accessible to many people so it can be said that technology helps learners understand and access a lot of knowledge. In this approach and view, motivation in MOOC independent learning, self-management, and learning supervision will absolutely encourage learning output and accelerate employee learning which has implications for the development of related industries. Referring back to the results of the study, organizations and leaders need to consider the relationship between learning organization within the company and the intention to develop independent learning in related companies further and more deeply.

Challenges in self-directed learning on MOOC, as a digital medium, may vary depending on the specific field of each company. However, in this research, it can be reflected that MOOC independent learning can be carried out with the support of learning organization, in which the role of the leader as a catalyst for learning organization in the company is very decisive. These challenges can be practically in the form of digital technology adaptation, digital literacy, MOOC infrastructure, and company support for technical learning such as laptop or computer and the right mobile learning. These things need to be handled with appropriate change management so that organizational leaders and actors are of the same urgency to build a new learning culture that encourages optimization of learning through the MOOC platform. Organizational leaders need to include an employee development agenda through independent development in the annual strategy to provide learning space for employee while increasing their competence in the organization strategically and practically. Organizational leaders also need to invest in a digital ecosystem and infrastructure to support mass and measurable employee development on self-directed learning that ultimately has an impact on employees and related organizations. Digital literacy also needs to be developed to help every employee understand and able to use learning infrastructure and MOOC optimally. Without proper digital literacy, employees will find it difficult to learn with MOOC.

Based on the study, it can be concluded that learning organization has a positive effect on learning motivation, Self-Management, and Self-Monitoring. This means that although the organization has obstacles and challenges in implementing independent learning through MOOC, the most crucial and vital thing is the personal traits of the employees (Motivation, Self-Management, Self-Monitoring) of an organization due to the influence of the organizational environment (learning organization). If the employees do not possess personal drive, either motivation, self-management, and self-monitoring, they will find it difficult to develop their competencies. In this perspective, leaders need to build a good learning organization and foster motivation to learn while realizing the constraints of MOOC implementation. In addition, leaders also need to realize that no matter how great the role of organizations and leaders is, the above efforts will not work if the employees do not have the drive or interest in learning. Thus, organizational leaders need to cultivate a culture of personal team development to encourage the employees to have an intrinsic willingness within themselves in developing themselves and learning independently with the support of an internal learning system and an annual learning benefit system that will have an impact on their careers and eventually challenge them to utilize of the system.

## 9.2. Limitations of the Research

There are still some limitations in this research. First, this research only discusses the effect of learning organization on learning motivation, independent supervision, and self-management with retail/trade industry employees who have accessed MOOC as respondents. This research can certainly be expanded to research outside the retail/trade industry such as in different industries with the approach of different learning medias. Second, the research can be further developed by pairing suitable or appropriate variables to encourage independent learning (learning motivation, learning management, and self-directed learning supervision) in addition to the learning organization variable, which has a stronger correlation. Third, further research can be developed to examine the relationship between mediateon variables on learning motivation and independent learning management in more detail.

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### References

- Abd-El-Fattah, S. M. (2010). Garrison's model of self-directed learning: Preliminary validation and relationship to academic achievement. *The Spanish Journal of Psychology*, 13(2), 586–596. <https://doi.org/10.1017/S1138741600002262>
- Adair, D., Alman, S. W., Budzick, D., Grisham, L. M., Mancini, M. E., & Thackaberry, A. S. (2014). Many shades of MOOCs. *Internet Learning*, 3(1). <https://doi.org/10.18278/il.3.1.5>
- Anindita, R. (2017). *Construct a model of efficiency level measurement of the private universities*. V(2).
- Bonk, C. J., & Lee, M. M. (2017). Motivations, achievements, and challenges of self-directed informal learners in open educational environments and MOOCs. *Journal of Learning for Development*, 4(1), 36–57. <https://doi.org/10.56059/jl4d.v4i1.195>
- Bosch, C., & Goede, R. (2019). *Self-directed learning: A conceptual overview* (Vol. 1). <https://doi.org/10.4102/aosis.2019.bk134.01>
- Conole, G. (2015). Designing effective MOOCs. *Educational Media International*, 52(4), 239–252. <https://doi.org/10.1080/09523987.2015.1125989>
- Davis, D., & Daley, B. J. (2008). The learning organization and its dimensions as key factors in firms' performance. *Human Resource Development International*, 11(1), 51–66. <https://doi.org/10.1080/13678860701782352>
- Du Toit-Brits, C. (2018). Towards a transformative and holistic continuing self-directed learning theory. *South African Journal of Higher Education*, 32(4), 51–65. <https://doi.org/10.20853/32-4-2434>
- Ellinger, A. D. (2004). The concept of self-directed learning and its implications for human resource development. *Advances in Developing Human Resources*, 6(2), 158–177. <https://doi.org/10.1177/1523422304263327>
- Fournier, H., & Kop, R. (2015). MOOC learning experience design: Issues and challenges. *International Journal on E-Learning: Corporate, Government, Healthcare, and Higher Education*, 14(3), 289–304.
- Garrison, D. R. (1997). Self-directed learning: Toward a comprehensive model. *Adult Education Quarterly*, 48(1), 18–33. <https://doi.org/10.1177/074171369704800103>
- Guo, W., & Bai, B. (2019). Effects of self-regulated learning strategy use on motivation in EFL writing: A comparison between high and low achievers in Hong Kong primary schools. *Applied Linguistics Review*, 13(1), 117–139. <https://doi.org/10.1515/applirev-2018-0085>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2013). *Multivariate data analysis*. *Exploratory Data*



- Analysis in Business and Economics*. [https://doi.org/10.1007/978-3-319-01517-0\\_3](https://doi.org/10.1007/978-3-319-01517-0_3)
- Harijanto, B., Apriyani, M. E., & Hamdana, E. N. (2021). Online learning system for Kampus Merdeka: Innovative learning in Covid-19 pandemic. *IJORE: International Journal of Recent Educational Research*, 2(5), 590–599. <https://doi.org/10.46245/ijorer.v2i5.156>
- Huysman, M. (2000). An organizational learning approach to the learning organization. *European Journal of Work & Organizational Psychology*, 9(2), 133–145. <https://doi.org/10.1080/135943200397905>
- Ibrahim, H. I., & Jaafar, A. H. (2017). The outcomes of work-integrated learning programmes: The role of self-confidence as mediator between interpersonal and self-management skills and motivation to learn. *Pertanika Journal of Social Sciences & Humanities*, 25(2), 931–948.
- Irfan, S. (2021). *Learning organizational practice and employee motivation: Evidence from Consumer technology industry of Karachi*. March.
- Islam, T. (2019). Motivation to transfer training in learning organizations. *Journal of Management Development*, 38(4), 273–287. <https://doi.org/10.1108/JMD-03-2018-0098>
- Jensen, P. E. (2005). A contextual theory of learning and the learning organization. *Knowledge & Process Management*, 12(1), 53–64. <https://doi.org/10.1002/kpm.217>
- Ju, B., Lee, Y., Park, S., & Yoon, S. W. (2021). A meta-analytic review of the relationship between learning organization and organizational performance and employee attitudes: Using the dimensions of learning organization questionnaire. *Human Resource Development Review*, 20(2), 207–251. <https://doi.org/10.1177/1534484320987363>
- Kamaruddin, N. F., Abiddin, N. Z., Idris, K., & Lecturer, S. (2014). Relationship between self-directed learning, motivation to learn toward learning organization among lecturers at a selected public university in Malaysia. *International Journal of Education*, 465(1), 23–35. <https://doi.org/10.17509/ije.v8i1.1766>
- Kim, D., Jung, E., Yoon, M., Chang, Y., Park, S., Kim, D., & Demir, F. (2021). Exploring the structural relationships between course design factors, learner commitment, self-directed learning, and intentions for further learning in a self-paced MOOC. *Computers & Education*, 166 (February), 104171. <https://doi.org/10.1016/j.compedu.2021.104171>
- Kim, K., Watkins, K. E., & Lu, Z. (L). (2017). The impact of a learning organization on performance: Focusing on knowledge performance and financial performance. *European Journal of Training & Development*, 41(2), 177–193. <https://doi.org/10.1108/EJTD-01-2016-0003>
- Lemmetty, S., & Collin, K. (2020). Self-directed learning as a practice of workplace learning: Interpretative repertoires of self-directed learning in ICT work. *Vocations & Learning*, 13(1), 47–70. <https://doi.org/10.1007/s12186-019-09228-x>
- Lenaini, I. (2021). Teknik pengambilan sampel purposive dan snowball sampling. *Jurnal Kajian, Penelitian & Pengambilan Pendidikan Sejarah*, 6(1), 33–39. <http://jurnal.ummatac.id/index.php/historis/article/download/4075/pdf>
- Leufvén, M., Vitrakoti, R., Bergström, A., Ashish, K. C., & Målvist, M. (2015). Dimensions of Learning Organizations Questionnaire (DLOQ) in a low-resource health care setting in Nepal. *Health Research Policy and Systems*, 13(1), 1–8. <https://doi.org/10.1186/1478-4505-13-6>
- Loeng, S. (2020). Self-directed learning: A core concept in adult education. *Education Research International*, 2020, 1–12. <https://doi.org/10.1155/2020/3816132>
- Maurer, T. J., Weiss, E. M., & Barbeite, F. G. (2003). A model of involvement in work-related learning and development activity: The effects of individual, situational, motivational, and age variables. *Journal of Applied Psychology*, 88(4), 707–724. <https://doi.org/10.1037/0021-9010.88.4.707>
- Rana, S., Ardichvili, A., Polesello, D., & Sowath Rana Alexandre Ardichvili Daiane Polesello. (2016). Article information: Promoting self-directed learning in the learning organization: Tools and Practices. *European Journal of Training and Development*, 40(7), 470–489. <https://doi.org/10.1108/EJTD-10-2015-0076>
- Saptayana, I. N. A. I. N. K. A., Agustini, K., & Sudatha, I. G. W. (2021). Tren Dan Implementasi MOOC Dalam Berbagai Bidang Ilmu: Studi Kasus di Indonesia. In *Seminar Nasional Teknologi ....* <https://www.snastep.com/proceeding/index.php/snastep/article/view/48>
- Sidek, S. F., Yatim, M. H. M., Ariffin, S. A., & Nurzid, A. (2020). The acceptance factors and effectiveness of mooc in the blended learning of computer architecture and organization course. *Universal Journal of Educational Research*, 8(3), 909–915. <https://doi.org/10.13189/ujer.2020.080323>
- Song, L., & Hill, J. R. (2007). A conceptual model for understanding self-directed learning in online environments. *Journal of Interactive Online Learning*, 6(1), 27–42.
- Song, J. H., Joo, B. K., & Chermack, T. J. (2009). The dimensions of learning organization questionnaire (DLOQ): A validation study in a Korean context. *Human Resource Development Quarterly*, 20(1), 43–64. <https://doi.org/10.1002/hrdq.20007>
- Vera, D., & Crossan, M. (2004). Strategic leadership and organizational learning. *Academy of Management Review*, 29(2), 222. <https://doi.org/10.2307/20159030>
- Weldy, T. G. (2009). Learning organization and transfer: Strategies for improving performance. *The Learning Organization*, 16(1), 58–68. <https://doi.org/10.1108/09696470910927678>
- Wu, B. (2021). Influence of MOOC learners discussion forum social interactions on online reviews of MOOC. *Education and Information Technologies*, 26(3), 3483–3496. <https://doi.org/10.1007/s10639-020-10412-z>
- Zhu, M. (2021). Enhancing MOOC learners' skills for self-directed learning. *Distance Education*, 42(3), 441–460. <https://doi.org/10.1080/01587919.2021.1956302>
- Zhu, M., Bonk, C. J., & Doo, M. Y. (2020). Self-directed learning in MOOCs: Exploring the relationships among motivation, self-monitoring, and self-management. *Educational Technology Research & Development*, 68(5), 2073–2093. <https://doi.org/10.1007/s11423-020-09747-8>
- Zhu, M., & Doo, M. Y. (2021). The relationship among motivation, self-monitoring, self-management, and learning strategies of MOOC learners. *Journal of Computing in Higher Education*, 0123456789(2), 321–342. <https://doi.org/10.1007/s12528-021-09301-2>



## Appendix

Variasi	Indikator	Komponen				Keterangan
		1	2	3	4	
Learning Organization	LO1	0.087				Not Valid
	LO2	0.136				Not Valid
	LO3	0.062				Not Valid
	LO4	-0.041				Not Valid
	LO5	0.057				Not Valid
	LO6	0.113				Not Valid
	LO7	0.099				Not Valid
	LO8	0.129				Not Valid
	LO9	0.068				Not Valid
	LO10	0.050				Not Valid
	LO11	0.067				Not Valid
	LO12	0.056				Not Valid
	LO13	0.117				Not Valid
	LO14	0.722				Valid
	LO15	0.769				Valid
	LO16	0.780				Valid
	LO17	0.696				Valid
	LO18	0.785				Valid
	LO19	0.828				Valid
	LO20	0.845				Valid
	LO21	0.828				Valid
Motivation	LM1		0.587			Not Valid
	LM2		0.712			Valid
	LM3		0.777			Valid
	LM4		0.796			Valid
	LM5		0.782			Valid
	LM6		0.740			Valid
	LM7		0.717			Valid
	LM8		0.789			Valid
	LM9		0.770			Valid

(Continued)

(Continued)						
Variasi	Indikator	Komponen				Keterangan
		1	2	3	4	
Self Management	SMA1			0.723		Valid
	SMA2			0.822		Valid
	SMA3			0.790		Valid
	SMA4			0.817		Valid
	SMA5			0.750		Valid
	SMA6			0.703		Valid
	SMA7			0.608		Not valid
	SMA8			0.759		Valid
Self Monitoring	SMO1				0.665	Not valid
	SMO2				0.628	Not valid
	SMO3				0.615	Valid
	SMO4				0.743	Valid
	SMO5				0.765	Valid
	SMO6				0.817	Valid
	SMO7				0.824	Valid
	SMO8				0.847	Valid
	SMO9				0.851	Valid