

Development of Digital Corporate University Strategy at the Indonesian FDA to Strengthening Human Resources in Improving Competitiveness and Public Health through Quality Food and Drug Control in Indonesia

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The quality of food and drug is a part that determines the level of public health in Indonesia. Nevertheless, several problems must be faced that cause food and drug control to be considered ineffective in the implementation, involve the weakness of the human resources of food and drug control competencies. This study aims to develop a learning and development strategy at the Indonesian Food and Drug Authority (Indonesian FDA) to strengthen human resources for solving the problem of food and drug control in Indonesia. The study was carried out through survey, focus group discussion, interview, dan literature study to get the data analyzed and the conclusion. The result findings showed that Corporate University with college and school strategy and digital learning relevant to human resources of food and drug control condition that spread in all Indonesia, in the Indonesian FDA office or other government agencies of central and regional government. This strategy is a new approach in learning and development for strengthening human resources of food and drug control to support improved public health through quality food and drug control and support for increasing competitiveness of Indonesian food and drug industries. This study can be helpful for public officials or policymakers in human resources development, particularly in learning and development program designing.

Keywords: Control, Corporate University, Drug, Food, Human Resources, Learning, Public Health

JEL Classification: O15, H75, I18

INTRODUCTION

The quality of food and drug is a part that determines the level of public health in a Country, include in Indonesia (Slamet & Solikha, 2019). Moreover, the food and drug industry also influence the Country's economy. In Indonesia, the food and drug industry is the most significant contribution to the Gross Domestic Product (GDP) in 2019 (Ministry of Industry, 2020). Nevertheless, food and drug control in Indonesia is considered ineffective in the implementation based on President Regulation No. 18 (2020) on the 2020-2024 National Mid-Term Development Plan (called RPJMN). Drug circulation licensing at the Indonesian Food and Drug Authority (Indonesian FDA) is still considered an obstacle to Indonesian economic growth (Hidayat et al., 2018). Efforts will be needed to improve the quality of food and drug control to increase public health, competitiveness and support economic growth (Slamet & Solikha, 2019).

Based on the grand design of the Indonesian FDA Human Capital Management (HCM) 2020-2045, it is needed the various competencies for future food and drug control, such as business insight, strategic thinking, learning agility, digital savvy, data science, stem cell, nanotechnology, biotechnology, biosimilar, and bio cosmetics (Indonesian FDA, 2020). Some of these are new competencies where not many human resources of food and drug control have mastered them. The condition is undoubtedly a challenge for the Indonesian FDA. Based on President Regulation No. 14 (2015) on National Industrial Development Master Plan, the food and drug industry was established as a priority industry expected to increase its contribution to the Indonesian GDP. Through various licensing services processes carried out by the Indonesian FDA, implementing food and drug control is required to focus on public health and increase the economy, especially creating a business ecosystem that supports Indonesian competitiveness.

The Indonesian FDA has been required to improve the effectiveness of food and drug control by expanding the scope and quality of risk-based pre and post-market control of food and drug circulation. It will be carried out by strengthening the human resources and food and drug testing laboratories (President of Republic Indonesia Regulation, 2020). On the other hand, according to the operational audit by the Permanent Inspectorate of the Indonesian FDA team on the Center of Human Resources Development of Food and Drug Control (called PPSDM POM) in 2020, several human resources development process problems were found in the Indonesian FDA. PPSDM POM also only has two accreditations for all training programs without A accreditation. It shows that PPSDM POM must improve the quality of training for all training programs.

According to employees data in 2019, from 4,761 Indonesian FDA employees, 27.85% have non-graduate education. Based on employee competency profiles, 27.27% of employees have not met the managerial and sociocultural competency standards with competencies related to attitude and human relationship is an ability that priorities to be improved. In addition, competencies related to planning, implementation, evaluation, and decision-making also need to be developed at the Indonesian FDA (PPSDM POM, 2021). Meanwhile, based on the employees tested for technical competence in 2020, 27% did not pass the written technical competency test, and 24% did not pass the interview or direct practice technical competency test. The priority of developing technical competencies is related to post-market control, testing, and empowering the community to increase awareness of food and drug safety (Indonesian FDA, 2020). As the Nation Regulatory Authority (NRA), the Indonesian FDA must become a scientific evidence-based organization and law enforcement. Human resources with adequate quality and level of education are needed according to the organization's needs so that the existence

of the Indonesian FDA can be truly felt by society. The limited quality of the Indonesian FDA human resources needs to be prioritized for development (Slamet & Solikha, 2019). In addition, increasing the capacity of human resources is also needed to strengthen the control of drugs, traditional medicines, vaccines, and pre and post-market control to ensure product safety, effectiveness, and quality (Munira, 2019).

Based on that description and seeing the condition of human resources at the Indonesian FDA currently, the purpose of this research is to solve the problems in food and drug control that have been ineffective in the implementation, mainly related to the quality of human resources of food and drug control. The quality of human resources can be improved through various programs, such as challenging assignments, implementing a performance management system that focuses on talent development, and participating in learning and training programs. This research will be limited to discussing improving the quality of human resources through learning and training programs as a strategy in learning and developing human resources of food and drug control competencies. Furthermore, developing a new strategy in learning and training in the Indonesian FDA hoped to produce competent human resources to realize national goals. It includes increased quality of human resources of food and drug control for support to improve the quality of food and drug control with a target percentage of food and drug that meet the requirements according to RPJMN 2020-2024. In addition, qualified human resources are also expected to support the nation's economic growth by food and drug industry contribution, based on the National Industrial Development Master Plan 2015-2035.

LITERATURE REVIEW

Learning and Development

Learning and development encourage the involvement and interaction among community, organization, team, and individuals to move vigorously in ensuring continuous learning occur in the organization. Learning and development process assists employees in changing and improving their skills, attitude, and behavior towards higher performance outcomes (Mansor et al., 2012). There are seven dimensions in learning and development that are interrelated in organization learning at the individual, team, and organizational levels, namely (Yang et al., 2004):

1. Continuous learning, represents an organization's effort to create opportunities for continuous learning for all employees.
2. Inquiry and dialogue, refers to an organization's effort to create a culture of discussing, sharing, feedback, and experimentation as part of the knowledge management process.
3. Team learning, refers to the spirit of cooperation and the collaborative skills that basis the effective use of teams.
4. Empowerment, refers to an organization's process in creating and sharing a collective goal and getting feedback from employees about the gap between the current status and the new goal.
5. Embedded system, refers to an organization's effort to establish systems to create and share knowledge as part of the learning process.
6. System connection, refers to system thinking and actions to connect the organization to the internal and external environments.
7. Strategic leadership, refers to how leaders think strategically about using learning and development to create change and move the organization in new directions or business processes.

The organization's learning and development are viewed as one that can integrate people and structures to move toward continuous learning and change.

Corporate University

The corporate university is transforming the human resources learning and development process in the organization from the training center to the corporate university. Mark Allen (2002) defines the corporate university as "an educational entity that is a strategic tool designed to assist its parent organization in achieving its mission by conducting activities that cultivate individual and organizational learning, knowledge, and wisdom." Another definition conveyed by Rademarkers (2014) that the corporate university is "a unit organization, approach, or concept that supports renewal, implementation, and/or optimizing strategy through learning organization." The learning process in the corporate university strategy must be in line with organizational strategy, considering that the ultimate goal of the corporate university is achieving organizational goals.

The learning strategy of a corporate university depends on organizational strategies. Organizational strategies can be divided into two main strategies: exploitation strategy by optimizing current organizational systems and values, and exploration strategy through finding and developing new organizational systems to create new values. The challenge is to harmonize both strategies for organization sustainable lives. The learning needs of the exploitation strategy are different from the learning needs of the exploration strategy. There is an implementation strategy between exploitation and exploration strategies, carried out by implementing organization transformation strategy.

To align the organization strategy with the learning strategy of the corporate university, Rademakers (2014) conveyed three strategies of generic learning in corporate university, included school, college, and academy strategies. The school strategy is carried out based on exploiting the current organization's values, organizational system, and resources. The college strategy is carried out based on implementing the transformation of system organization and organization values. Meanwhile, the academy strategy is based on exploration and innovation to develop new organizational systems, business strategies, and new organizational values.

For the corporate university model, Wheeler and Clegg (2005) identified four differences in the model (Ewer & Russ-Eft, 2017), follows as:

1. A centralized model where learning is carried out directly by a unit of human resources in headquarter and a corporate university operator.
2. The decentralized model with no centralized control in human resources development or a unit responsible for developing human resources.
3. A federated model with central control to unify all the different human resources development efforts across the organization.
4. The hybrid model in which the organization can provide central control in the organization's home country but is then decentralized internationally.

In the Indonesian government context, the corporate university, also known as ASN corporate university, aims to accelerate state civil apparatus (called ASN) development. ASN corporate university is an ASN competency development activity entity that acts as a strategic tool to support achieving national development goals in handling strategic issues through a thematic and integrated learning process involving relevant Government Agencies and experts from inside/outside organizations. According to the Ministry of State Apparatus Empowerment and Bureaucratic Reform Regulation No. 3 (2020), ASN corporate university is one of the strategies in developing ASN talent.

Digital Learning

As an effect of developing information technology in industrial revolution 4.0 and the Internet of Think, both the learning process and corporate university strategies develop through optimized technology to support the learning process through a digital learning

approach. Digital learning is a learning process delivered by digital forms of media through the Internet (Lin & Chen, 2017). One form of digital learning is e-learning that initially applied to the use of Internet technologies in learning (Levis, 2005). Successful e-learning as part of learning activity is influenced by perceived employee's usefulness, ease of use, subjective norms, and self-confidence of employees (Khafit et al., 2020). However, the challenges about when, how, where, and whom that effectively use e-learning to meet organizational learning needs must also be considered in developing digital learning (Bentley, 2005). The organization's success in the implementation of digital learning also depends on the digital literacy of employees. According to a study carried out by United Nations Educational, Scientific, and Cultural Organization (UNESCO), digital literacy is the ability to access, manage, understand, integrate, evaluate, communicate, and create information safely and accurately through digital technology (Law et al., 2018). Digital literacy built from seven aspects of digital skill: a) devices and software operations; b) information and data literacy; c) communication and collaboration; d) digital content creation; e) safety; f) problem-solving; and g) career-related competences.

RESEARCH METHOD

This research uses qualitative and quantitative methods to develop a new design and concept of learning and development strategy for strengthening human resources of food and drug control. The research uses primary data and secondary data. Primary data was collecting by survey, interview (Siyoto & Sodik, 2015), and focus group discussion. The sampling technique in the survey used probabilities sampling techniques (Rinaldi et al., 2020). The population in this research is all Indonesian FDA employees. Survey used to measure digital literacy of the Indonesian FDA employees as a mains costumer of the Indonesian FDA digital corporate university. While secondary data was collecting by study literature, that is defined as a series of activities involving collecting library data, reading and taking notes, and managing research materials (Kartiningrum, 2015). Study literature uses data from regulations, policies, journals, articles, books, and internal documents. One of the analyses in the study literature is an external analysis by the PESTEL framework by categorizing and analyzing an essential aspect of external factors (political, economic, sociocultural, technological, ecological, and legal) that might affect the organization (Rothaermel, 2021).

RESULTS

PESTEL Analysis Result

PESTEL analysis was carried out because the Indonesian FDA is a government agency at once as an open system organization affected by the external environment, including the human resource policies of apparatus management. From the PESTEL analysis framework can be conveyed the result analysis follows as:

1. Political

The Minister of State Apparatus Empowerment and Bureaucratic Reform conveys that a corporate university is a tool for accelerating ASN development. The head of the State Administration Agency also said that developing ASN corporate university is a set policy for developing civil servants in Indonesia. It is an opportunity for the Indonesian FDA to develop a corporate university.

2. Economic

The Indonesian economic growth was stagnant at around 5% since 1998 (National Planning Agency, 2020). Its prediction affects human resources development budgeting in government agencies, so it needs to find an innovative approach to developing civil servants with a limited budget, included in the Indonesian FDA.

3. Sociocultural

Change of learning attitude and interest of civil servants, especially after pandemic Covid-19 happened in Indonesia, affected to learning culture of civil servants, including for Indonesian FDA. It is considering that the Indonesian FDA is also responsible for developing human resources of food and drug control from other agencies.

4. Technological

Industrial revolution 4.0 combined with pandemic Covid-19 have accelerated the development of information technology globally (Kee et al., 2021), including in human resources learning and development programs. The trend of human resources development in Indonesia shows that digital learning has become a choice for developing human resources (Martin et al., 2021). It is also affected for government agencies in developing tools for learning programs, included in the Indonesian FDA.

5. Ecological

Global warming has become an issue globally. Everyone has to be concerned about it to reduce the acceleration of global warming. Training activities must also consider it through innovative efforts to developing environmentally-friendly learning activities. For example, reduce paper or not use materials to accelerate global warming.

6. Legal

Based on Government Regulation Number 11 (2017), every civil servant has the right for developed their competencies, a minimum of 20 hours of learning per year. In addition, according to Government Regulation Number 17 (2020), the competencies development of civil servants in Indonesia is carried out with an integrated learning system through corporate university strategy.

Digital Literacy Survey of the Indonesian FDA Employees

The survey aims to know the digital literacy index of the Indonesian FDA employees as the basis for developing learning by the digital learning approach in the Indonesian FDA.

1. Profile of survey respondents

The research population was 4.755 Indonesian FDA employees, with the number of sample survey was 3.244 respondents, more than the minimum number of samples based on a slovin formula with an error tolerance of 1%. From the 3.244 respondents, it can convey that 66,6% of respondents are female, and 33,4% are male. In addition, based on the organization unit, 64,5% of the respondent from provincial offices, 21,5% from headquarter office, and 14% from the regency or city offices.

2. Digital Literacy Survey Result

a. Digital Literacy Survey Item Validity and Reliability Test

With validity test using Pearson product-moment by SPSS application for 27 items survey of digital literacy, obtain that all items survey is valid with a score of sig. (2-tailed) < 0,05, and the score of r result > r table in 5% or 1 % signification. Besides, the reliability test using Cronbach alpha analysis obtained that score is 0,956 more than 0,6 (0,956>0,6). It is shown that all items is reliable statistically.

b. Digital Literacy Survey of the Indonesian FDA Employees

The digital literacy survey of the Indonesian FDA employees can convey the result of the survey as follow (Table 1):

Table 1. Result of Digital Literacy Survey of the Indonesian Employees

No	Digital Skills	Survey Result Index	Qualitative Qualification*
1	Devices and software operations	45,08	Very Good
2	Information and data literacy	44,08	Very Good
3	Communication and collaboration	44,48	Very Good
4	Digital content creation	36,71	Good
5	Safety	41,53	Very Good
6	Problem-solving	39,21	Good

No	Digital Skills	Survey Result Index	Qualitative Qualification*
7	Career-related competences	39,95	Good
	Digital Literacy Index	41,36	Very Good

*Qualitative qualification refers to the digital literacy of state civil apparatus qualification developed by Rumata and Nugraha (2020)

Focus Group Discussion and Interview

FGD aimed to get the information and point of view from internal stakeholders related to human resources of the Indonesian FDA condition and how to improve the quality of human resources of food and drug control in Indonesia for support improving the quality of food and drug control implementation. FGD was carried out by representation from the organization unit related to human resources management, planning and development, technology information, and policy development. In addition, interviews were carried out with the Permanent Secretary of the Indonesian FDA as an Echelon 1 that has responsibility for human resources management supervisory, and with the Head of PPSDM POM, who has responsibility for implementing the human resources development. The interview aimed to get the information from the Indonesian FDA policymaker related to efforts and policies in improving the quality of human resources of food and drug control in Indonesia.

From FGD can convey that the competency development of human resources is one factor that determines the quality of food and drug control in Indonesia, and that must be intervened. For improving the quality of human resources competencies, it is needed to give all employees opportunities to participate in learning and training programs. In addition, the development of human resource competencies at the Indonesian FDA must lead to organizational transformation to support the growing demands for food and drug control quality. Nevertheless, efforts to optimize the organization's values and strategies, including closing the employee competency gap, which is still a problem, must also be made. Many Indonesian FDA employees still do not fully understand the vision, mission, goals, and organization strategy, so this must also be a concern in developing the Indonesian FDA's design and concept of learning and development.

From interview can convey that developing learning and training design and concept, included developing learning curriculum at the Indonesian FDA must close the competency gap to support the implementation and optimization of existing organizational strategies. However, learning design and learning curriculum must also be developed to encourage the transformation of the Indonesian FDA organization. In addition, the learning strategy that will be developed must also support the implementation of talent management and succession planning. Competency development through digital learning strategies has become a current need. However, evaluation and impact on employees and the organization must still be seen.

As adding information, the Indonesian FDA is currently expanding the educational background for pharmaceutical and food supervisory officials. It is also necessary to conduct a study related to its impact on the human resources development programs, mainly related to the budget requirements and resources needed in the human resources development programs to support the food and drug control in Indonesia. For competencies development, currently in the process of changing the paradigm from training to learning in the Indonesian FDA, mainly through the 10:20:70 strategy where this strategy is commonly used in learning strategies in the corporate university.

DISCUSSION

From the study literature and considering the digital literacy survey, FGD and interviews can be conveyed that the Indonesian FDA needs a new design and concept of learning and development for strengthening human resources of food and drug control. Learning and development programs must support the organizational transformation and improve the quality of human resources of food and drug control through mastered new competencies that need the Indonesian FDA, right now and in the future. On the other hand, the Indonesian FDA also needs a learning program to close employees' competencies gap with standard competencies. Furthermore, learning and development programs must be able to answer the needs of the Indonesian FDA for improving the quality of food and drug control implementation and achieving organizational goals.

Considering government regulation No. 17 (2020) and Minister of State Apparatus Empowerment and Bureaucratic Reform Regulation No. 3 (2020), the corporate university can be an alternative strategy and a conceptual framework for developing new learning and development in the Indonesian FDA. The corporate university aims to assist its parent organization in achieving its goal (Allen, 2002) and supports renewal, implementation, and optimizing strategy through learning organization (Radermakes, 2014). For support of organization transformation, the Indonesian FDA can set a college learning strategy as an alternative in the development of a corporate university. However, school learning strategy can be chosen to close the gap competencies and optimize the role of human resources in implementing the current Indonesian FDA strategy. From the corporate university type, the choice of the centralized model can be a choice. The consideration is the Indonesian FDA as a vertical organization where organizational policies and strategies must be the same to be implemented throughout Indonesia.

The development of corporate university by directly implementing two strategies is at the same time a challenge for the Indonesian FDA. One of the challenges is limited resources involved in developing the corporate university, especially in developing learning strategies, learning curriculum, and implementing learning. As stated by Radermakes (2014), implementing two learning strategies simultaneously causes the organization to not focus on human resources development strategy and has the potential to fail. The preparation of human resources and a strong team in developing the Indonesian FDA corporate university is needed, with a clear assignments between those who develop the college strategy and the school strategy. As part of the talent management strategy and succession planning at the Indonesian FDA, talent competency development must also be a concern in developing the learning curriculum.

By looking at the digital literacy index of the Indonesian FDA employees, digital learning can be an alternative in learning approach at a corporate university in the Indonesian FDA. Nevertheless, the effectiveness of digital learning to support employee and organizational performance must still be considered. In addition, digital learning will also facilitate the Indonesian FDA employees and human resources of food and drug control non-Indonesian FDA in developing competencies. Developing digital learning also considers the trend of competency development (Martin et al., 2021). Developing a learning and development strategy through a digital corporate university in the Indonesian FDA aims to improve the quality of human resources or human capital of food and drug control in Indonesia. Human capital is also defined as the economic value of human resources related to knowledge, ability, commitment, ideas, innovation, and energy, which is one of the strengths of establishing solid relationships between the Indonesian FDA and the community (Kimbal, 2020). In addition, corporate university also aim to maintain and increase public trust (Bruny, 2007; Firdaus, 2017).

CONCLUSION

This research aims to solve the problems in food and drug control that have been implemented ineffectively, mainly related to human resources of food and drug control quality through developing digital corporate university as a strategy in learning and developing human resources competencies. From the analysis conducted, the centralized Indonesian FDA digital corporate university with a college and school learning strategy can be a choice for the Indonesian FDA in developing new learning and development. Learning strategy through the FDA digital corporate university is expected to produce quality human capital to improve the quality of drug and food control in Indonesia. In addition, the qualified human capital of food and drug control is expected to produce policies to create a business ecosystem supporting Indonesian competitiveness, especially in the food and drug industry sector. With the qualified control of food and drug, it is hoped that it can improve the health of the Indonesian people, increase competitiveness, and support Indonesia's economic growth.

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DECLARATION OF CONFLICTING INTERESTS

The authors declare no conflict of interest in creating and preparing this research paper.

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