Analysis of the Influence of Digital Economy Collaborative Learning towards Achievement and Recognition of Students and Lecturers of Management Major of Narotama University

Arasy Alimudin, Agus Sukoco, Achmad Zakki Falani, Ani Wulandari, Joko Suyono
Narotama University, Surabaya, Indonesia
arasy.alimudin@narotama.ac.id; agus.sukoco@narotama.ac.id; zakki.falani@narotama.ac.id;
ani.wulandari@narotama.ac.id; joko.suyono@narotama.ac.id

Abstract

This study discusses the implementation of the Independent Learning Campus Curriculum (MBKM) in collaborative learning of the digital economy, students and lecturers of the management study program at Narotama University who take courses in strategic marketing management and digital marketing. The purpose of this research is to reveal how significant is the influence of digital economy collaborative learning towards the achievement and recognition of students and lecturers of management major of Narotama University. The research sample is all students and lecturers of Narotama University, Surabaya, Indonesia participating in the courses of strategic marketing management and digital marketing with a total of 381 student populations and 20 lecturers who took the MBKM curriculum. This research is using mixed methods, in which the qualitative approach is conducted by descriptive analytics and the quantitative approach conducted by crosstab to acknowledge the relationship between variables. The results showed a significant influence of digital economy collaborative learning towards the achievement and recognition of students and lecturers.

Keywords
Curriculum, collaborative learning, digital economy, achievement, recognition.

1. Introduction
The existence of the industrial revolution 4.0 changes learning policies in the campus environment in Indonesia. In accordance with the direction of the Ministry of Education and Culture, in order to anticipate and deal with the development of the industrial revolution 4.0, the curriculum must be updated to meet the demands of the needs of university graduates who are adaptive to their needs. industrial revolution 4.0 which the ministry calls the Independent Learning Campus Curriculum (MBKM) (Nehe, 2021). This is in line with the purpose of providing education in the management study program at Narotama University, where one of the graduate profiles developed from the vision, mission, goals and objectives of Narotama University, the management study program is to become a professional in the field of marketing management. Graduates are capable of corporate marketing management and organizational leadership abilities that are qualified and professional. expertise in preparing marketing plans and carrying out digital-based marketing performance evaluation programs. To realize this, a business process in management study program is made including (1) input, including: lecturers, students, books, administrative staff and technicians, facilities and infrastructure, funds, documents curriculum, and environment (2) processes, including the learning process, research process, and quality management process. (3) outcomes, including graduates, research results, and the creativity of lecturers and students, the results of the service and (4) Impact. includes public acceptance and acknowledgment of higher education outcomes, sustainability produced by lecturers and students which has an impact on improving the quality of life of the community, and the environment. To ensure the creation of a process that produces the expected outputs and impacts, skills and expertise courses are designed that support the achievement of the expected graduate competencies, namely the digital economy which is spread over several courses, namely strategic marketing management and digital marketing, and in the learning process the availability of learning plans is required. in the form of a clear curriculum document and according to the needs of the job market, in the digital business era(Arianto, 2020; Sinicki, 2019). includes public acceptance and acknowledgment of higher education outcomes, sustainability

produced by lecturers and students which has an impact on improving the quality of life of the community, and the environment. To ensure the creation of a process that produces the expected outputs and impacts, skills and expertise courses are designed that support the achievement of the expected graduate competencies, namely the digital economy which is spread over several courses, namely strategic marketing management and digital marketing, and in the learning process the availability of learning plans is required. in the form of a clear curriculum document and according to the needs of the job market, in the digital business era(Marisda & Handayani, 2020). includes public acceptance and acknowledgment of higher education outcomes, sustainability produced by lecturers and students which has an impact on improving the quality of life of the community, and the environment. To ensure the creation of a process that produces the expected outputs and impacts, skills and expertise courses are designed that support the achievement of the expected graduate competencies, namely the digital economy which is spread over several courses, namely strategic marketing management and digital marketing, and in the learning process the availability of learning plans is required. in the form of a clear curriculum document and according to the needs of the job market, in the digital business era(June, 2010; Männistö et al., 2020). sustainability produced by lecturers and students which has an impact on improving the quality of life of the community, and the environment. To ensure the creation of a process that produces the expected outputs and impacts, skills and expertise courses are designed that support the achievement of the expected graduate competencies, namely the digital economy which is spread over several courses, namely strategic marketing management and digital marketing, and in the learning process the availability of learning plans is required. in the form of a clear curriculum document and according to the needs of the job market, in the digital business era(Jonker et al., 2020; Maria & Widayati, 2020). Sustainability produced by lecturers and students which has an impact on improving the quality of life of the community, and the environment. To ensure the creation of a process that produces the expected outputs and impacts, skills and expertise courses are designed that support the achievement of the expected graduate competencies such as the digital economy which is spread over several courses, namely strategic marketing management and digital marketing, and in the learning process the availability of learning plans is required. in the form of a clear curriculum document and according to the needs of the job market, in the digital business era(Horal et al., 2020; Sarwar et al., 2019; Sinicki, 2019).

1.1 Objectives

This study discusses the implementation of the Independent Learning Campus Curriculum (MBKM) in collaborative learning of the digital economy, students and lecturers of the management study program at Narotama University who take courses in strategic marketing management and digital marketing. While the purpose of this research is to find out how significant the influence of digital economy collaborative learning on the achievement and recognition of students and lecturers in the management study program at Narotama University.

2. Literature Review

The collaborative learning is a learning model that is often used in the learning process(Alahdal & Al-Ahdal, 2019; Mustakim et al., 2021). Collaborative learning based on several previous studies on the effect of collaborative learning on learning outcomes shows that academic learning outcomes in collaborative classes are more higher compared to individual or competitive learning experiences(Al-khafajiy et al., 2020; Fitriasari et al., 2020; Weinberger & Shonfeld, 2020). In accordance with the guidebook, the main higher performance indicators include criteria for collaborative classroom learning methods and participatory include A. Case method consists of; 1. Students act as “protagonists” who try to solve a case; 2.students conduct case analysis to build solution recommendations, assisted by group discussions to test and develop solution designs; 3. The class discusses actively, with the majority of the conversations carried out by students. Lecturers only facilitate by directing the discussion, asking questions, and observing. B. Team-based projects consist of; 1. The class is divided into groups (>1 student) to work on a task together over a long period of time; 2. Groups are given original problems or complex questions, then given space to make work plans and collaboration models; 3. Each group prepares a presentation/final work that is presented to the lecturer, class, or other audience who can provide constructive feedback; Meanwhile, the evaluation criteria for the final score of 50% of the final score must be based on the quality of class discussion participation (case method) and/or the final presentation of project-based learning(Dirjen Dikti, 2021). Some recent research has shown that learning is fundamentally influenced by the context and activity in which it is embedded (Sathiya Priya & Shilaja, 2016). Collaborative learning activities immerse students in challenging tasks or questions, where students must collect related facts and ideas. Achievement is defined as the result of the information and competencies that students have achieved during a certain stage of the academic stage(Cohen, 2016; Marisda & Handayani, 2020). Several studies have suggested encouraging students' innovation by supporting their autonomy during learning tasks(Wijngaards-de Meij & Merx, 2018).

The digital economy is an economy based on electronic goods and services produced by electronic businesses and traded through electronic commerce, and the existence of digital technology is proven to play a strategic role in providing goods and services in a convenient, practical, cheaper, faster, economical and labor-intensive manner(Arianto, 2020; Maria & Widayati, 2020). The concept of the digital economy is often used to explain the global impact of information and communication technology, not only on the internet, but also on the economy(Männistö et al., 2020; Maria & Widayati, 2020). This concept becomes a view of the interaction between the development of innovation and technological progress and its impact on macroeconomics and microeconomics. For this reason, digital economics learning in the management study program of Narotama University is implemented in the form of strategic marketing management courses and digital marketing. Where these two courses have adopted the MBKM (Independent Learning Campus Curriculum), a program from th government of the Republic of Indonesia) semester curriculum and learning plan which includes collaborative learning activities to provide real experiences to students. Cooperative learning strategies that are applied vary using case study methods and team based projects, ranging from finding creative ideas from the results of brainstorming to building a solution from a real case in the form of dividing students based on achievement and interest then conducting Focus Group Discussions, with built discipline. and stimulate all students to work together(Ching, 2012; Rahman et al., 2020). Achievement, in this study as the dependent variable, informs academic performance through: standardized and/or validated measures(Kassarnig et al., 2018; Trigueros et al., 2020). Some research results also show that cooperative / collaborative learning has a positive influence on learning achievement. Student achievement in this study considering that the MBKM curriculum program has only been run for one semester, the term student achievement is limited to students' perceptions of the development of competence/skills as a provision to work after graduation and the improvement of soft-skills obtained after you participate in MBKM activities in developing competence/skills as a provision. work after graduation. Recognition is a non-competitive achievement achieved by students and lecturers, where recognition is given by the government, community, organization, or society(Meiryani et al., 2020; Resch et al., 2021).

Based on the literature review above, it can be concluded that the application of collaborative learning can affect learning achievement and recognition of students and lecturers. Collaborative learning in the implementation of the MBKM curriculum is needed to ensure the creation of a process that produces the expected outputs and impacts. Skills and expertise courses must be designed to support the achievement of graduate competencies that are expected to meet the needs of the job market in the digital business era. Implementation of the Independent Learning Campus Curriculum (MBKM) in digital economic collaborative learning the management study program of the economics faculty of Narotama University is outlined in learning strategic marketing management and digital marketing.

3. Methods

The type of research used is the mix method (mixed method). Mixed methods research is a methodology for conducting research that involves collecting, analyzing, and integrating quantitative and qualitative research into one study(Cortini, 2014; Rong et al., 2021). The purpose of this form of research is to focus on data collection and analysis as well as combining quantitative data and qualitative data and will result in a better understanding of the research problem than using only one approach. Where the qualitative approach used is a literature study, interviews and FGDs(Alamanda et al., 2020; Córdoba et al., 2020), while the quantitative analysis used is crosstabulation analysis which analyzes secondary data from the population survey of all management study program students who have followed the implementation of the MBKM curriculum through strategic marketing management and digital marketing courses and see the relationship and influence with the achievements and recognition of lecturers and students(Yankees, 2011). The total population studied in this study was 401 people consisting of 381 student populations and 20 lecturers who took the MBKM curriculum, and the research approach used was survey research because the entire population was used as respondents in this study (Sugiyono, 2018). The flow in this research. Analysis of Problems and Needs for the Implementation of the MBKM Curriculum, this analysis is carried out to understand the problems of implementing the MBKM curriculum, especially in digital economy courses including strategic marketing management courses and digital marketing, the first stage to be carried out is interviews, observations and literature studies. Based on the results of the analysis, a collaborative learning model was designed, especially in subjects related to the digital economy. Then to sharpen the results of the analysis, FGDs and simulations were carried out with lecturers and students, based on the results of the FGDs and simulations, a Digital Economics Collaborative Learning Model was determined by the senate of the Faculty of Economics and Education.

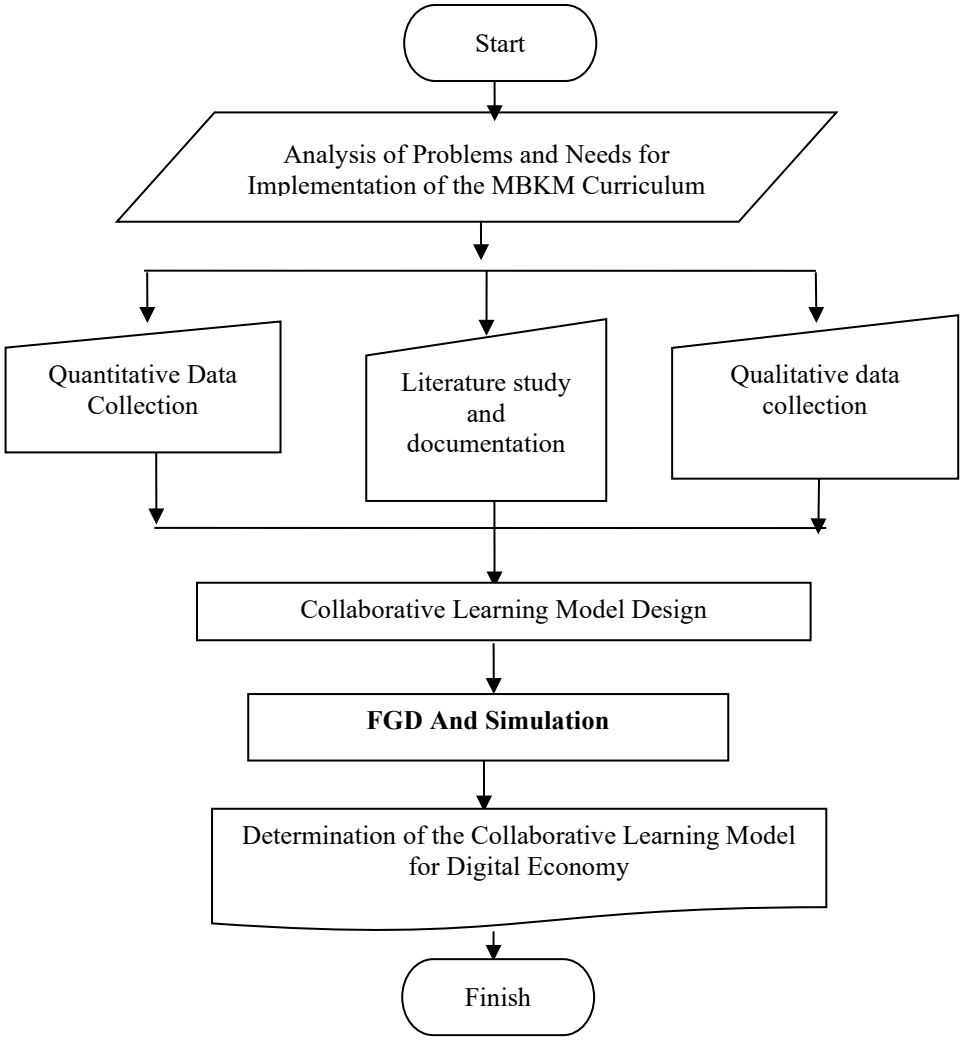

Figure 1. Research Design the Impact of the Implementation of the Digital Economy MBKM Curriculum on Improving Achievement and Recognition

4. Data Collection

Based on a survey of 381 students and 20 lecturers of the Narotama University Management Study Program that was carried out in December 2021, the following results were obtained. The data collected are all students of the management study program who have participated in the Implementation of curriculum MBKM program for strategic marketing and digital marketing management courses totaling 381 students with the lowest semester being semester 3 (43%), semester 5 (29%) and the highest semester is semester 7 (27). %). Based on the results of the validity test, it shows that all items in the questionnaire are valid at a significance level of 0.05 because the calculated R as in table 1-3 below is greater than R table 0.130. The reliability test shows the results of 0.583 which means it is included in moderate reliability.

Table 1. Validity & Reliability Test Result for the implementation of Curriculum MBKM in collaborative learning

Code	Question	R Table	R Count	Cronbach's Alpha	Decision

Q1	How well do you know about the Independent Learning-Independent Campus (MBKM) policy?	0.1381	0.305	0.58	Valid & Reliable
Q2	In your opinion, how many semesters and how many credits can be equated with MBKM activities outside the university?	0.1381	0.291	0.58	Valid & Reliable
Q3	Where did you get information about the Independent Learning-Independent Campus (MBKM) policy?	0.1381	0.114	0.58	Valid & Reliable
Q4	Does your study program have any previous programs that match the form of the Independent Learning-Independent Campus (MBKM) activity?	0.1381	0.256	0.58	Valid & Reliable
Q5	If you were asked to choose from 8 (eight) forms of learning activities outside the study program, which would you choose?	0.1381	0.305	0.58	Valid & Reliable
Q6	Do curriculum documents, guidelines and operational procedures for participating in MBKM activities already exist in your study program?	0.1381	0.637	0.58	Valid & Reliable
Q7	Have you prepared yourself to be a part of MBKM activities?	0.1381	0.471	0.58	Valid & Reliable
Q8	In your opinion, will learning activities outside the study program have implications during the study period?	0.1381	0.477	0.58	Valid & Reliable
Q9	In your opinion, will off-campus learning activities provide additional competencies such as skills in solving complex real problems, analytical skills, professional ethics, etc.?	0.1381	0.250	0.58	Valid & Reliable
Q10	In your opinion, studying in another study program will broaden your perspective and provide the additional competencies needed?	0.1381	0.426	0.58	Valid & Reliable
Q11	In your opinion, how useful are you if you take part in MBKM activities in developing competence/skills as a provision to work after graduation?	0.1381	0.415	0.58	Valid & Reliable
Q12	In your opinion, what do students need to prepare for the optimal implementation of MBKM?	0.1381	0.470	0.58	Valid & Reliable

Table 2. Validity Test Result for Achievement

Code	Question	R Table	R Count	Cronbach's Alpha	Decision
A1	In your opinion, how much of an increase in soft-skills did you get after you participated in MBKM activities in developing competence/skills as a preparation for work after graduation	0.1381	0.242	0.58	Valid & Reliable
A2	In your opinion, Will learning activities outside the study program have implications for study success?	0.1381	0.514	0.58	Valid & Reliable

Table 3. Validity Test Result for Recognition

Code	Question	R Table	R Count	Cronbach's Alpha	Decision
R1	In your opinion, how important are MBKM activities to prepare for the post-campus period?	0.1381	0.441	0.58	Valid & Reliable
R2	In your opinion, do MBKM activities for higher education meet the needs of future graduates?	0.1381	0.492	0.58	Valid & Reliable

5. Results and Discussion

The results of the study at the management study program level showed that 94.5% of respondents were aware of the Independent Learning Campus (MBKM) policy; The results also show that the largest percentage of 82% of them received information about the Independent Learning Campus (MBKM) policy from online channels (websites/websites, social media) and socialization carried out by the university. The showed that 92.4% of respondents stated that their campus had a previous program that was in accordance with the form of the Independent Learning Campus (MBKM) activity. The Independent Learning Campus (MBKM) learning activities selected by students of the management study program in sequence are as follows:

1. Student exchange (28%),
2. Internship/Work Practice(24,7%),
3. Research (18.6%),
4. Entrepreneurial Activities (11.8%),
5. Building a Village or Thematic Real Work Lecture(7.3%),
6. Teaching Assistant in Education Unit(6.3%),
7. Humanitarian Project (1.6%) and
8. Independent Study(1.6%).

The results also showed that students stated that curriculum documents, guidelines and operational procedures for participating in MBKM activities already existed in their study program (88.7% of respondents). And they are also prepared to be part of the 90.3% MBKM activity.

5.1 Numerical Results

The relationship between the indicators of the MBKM curriculum implementation variable and student achievement, then a crosstab analysis is carried out,and the test used is Chi-squared (Barceló, 2018). In this study, crosstabs analysis was carried out to see the relationship between indicators of MBKM curriculum implementation and student achievement and recognition. From table 4, the crosstab analysis above shows a significant level of 0.00 which indicates that MBKM activities will be able to improve student achievement, especially the development of competencies/skills as a provision to work after graduation and developing competence/skills as a preparation for work after graduation. The results of this study support the results of similar research with different objects regarding the significant effect of collaborative learning on student achievement(Ayodele & Olalekan, 2017; Jimenez et al., 2020; Weinberger & Shonfeld, 2020)

Table 4. Cross tabulation of Implementation of the MBKM Curriculum with Achievement

Variabel Instrument	Pearson Chi-Squre	Decision
Implementation of the MBKM Curriculum Q1 to Q12? With In your opinion, how much of an increase in soft-skills did you get after you participated in MBKM activities in developing competence/skills as a preparation for work after graduation?	0.00	Significant
Implementation of the MBKM Curriculum Q1 to Q12? With In your opinion, Will learning activities outside the study program have implications for study success?	0.00	Significant

Sources: crosstab 2021 data processing

Table 5. Cross tabulation of Implementation of the MBKM Curriculum with Recognition

Variabel Instrument	Pearson Chi-Squre	Decision
Implementation of the MBKM Curriculum Q1 to Q12? With In your opinion, how important are MBKM activities to prepare for the post-campus period?	0.00	Significant
Implementation of the MBKM Curriculum Q1 to Q12? With In your opinion, do MBKM activities for higher education meet the needs of future graduates?	0.00	Significant

Sources: crosstab 2021 data processing

From table 5, the crosstab analysis above shows a significant level of 0.00 which indicates that MBKM activities will be able to improve student recognition, especially preparation for the post-campus period and meet the demands of future graduate needs. The results of this study support the results of similar research with different objects regarding the significant effect of collaborative learning on student recognition(Meiryani et al., 2020; Psaltis et al., 2018; Shinoda & Nishioka, 2019)

5.2 Graphical Results

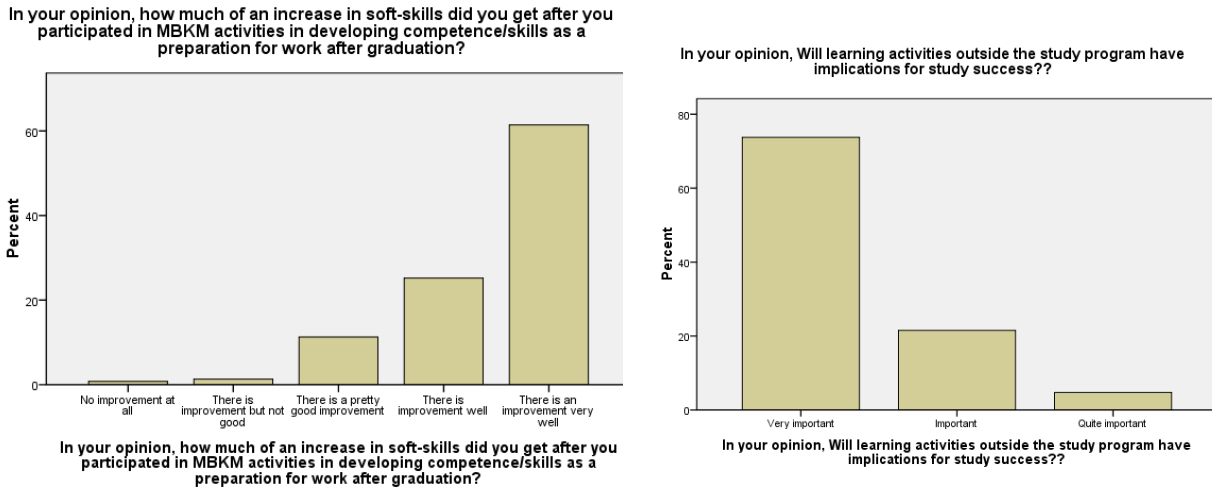

Figure 2. MBKM activities in developing competence/skills as a preparation for work after graduation and Will learning activities outside the study program have implications for study success.

Based on Figure 2 above, it shows that 98% of respondents stated that MBKM activities could develop competencies/skills as a preparation for work after graduation and 95% of respondents stated that the implementation of the MBKM curriculum had implications for study success. And this shows that the implementation of the MBKM curriculum will be able to improve student achievement.

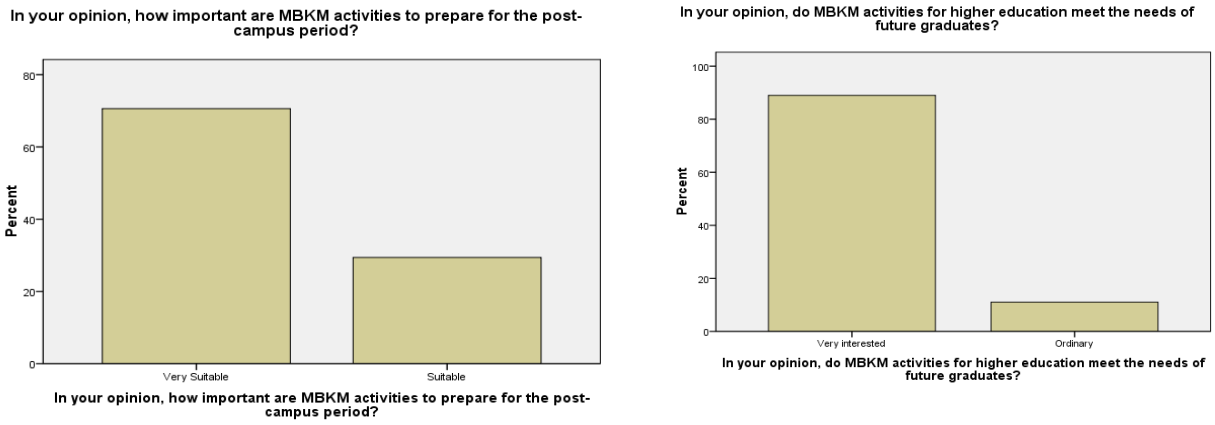

Figure 3. how important are MBKM activities to prepare for the post-campus period And do MBKM activities for higher education meet the needs of future graduates.

Based on Figure 3, it shows that as many as 100% of respondents stated the importance of MBKM activities for post-campus preparation. And as many as 89% of respondents stated that MBKM activities for higher education can meet the needs of future graduates.

Digital Economy Collaborative Learning Model

The results of interviews and Focus Group Discussions conducted on lecturers and students in relation to the implementation of the MBKM curriculum for digital economy learning, the results of the discussion are as follows:

1. The need for the establishment of the MBKM KPI at the study program level that supports the achievement of the MBKM KPI
2. Planning is needed starting from input, process, output and outcome
3. Intensive socialization is needed for lecturers and students
4. The Collaborative learning that is appropriate for the digital economy is the case study method and team-based digital economy projects
5. The need for quality assurance of the digital economy learning process to ensure the achievement of learning outcomes for MBKM courses and KPIs

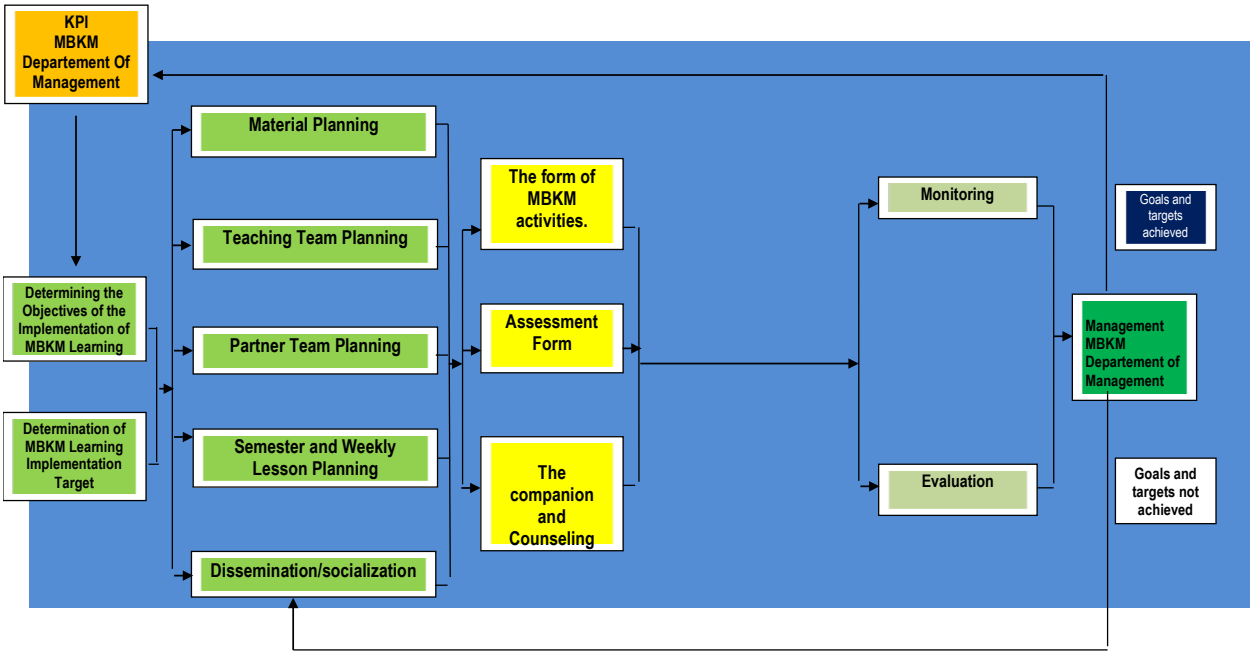

Figure 4. Model of Digital Economy MBKM Curriculum Implementation for Improving Achievement and Recognition

6. Conclusion

From the analysis above, it can be seen that there is a significant effect of collaborative digital economic learning (applying the MBKM curriculum) on the achievements and recognition of students and lecturers of the management study program at Narotama University. The results of the research that have been carried out have also shown that success in implementing the MBKM curriculum, especially in collaborative learning of digital economic, must make careful planning starting from input where policy determination, guidelines and material planning, resources, partners and socialization are required. , in terms of the process of determining the right form of learning and assessment activities and accompanied by mentoring and counseling which are then monitored and evaluated, especially on learning outcomes and MBKM KPI achievements, as well as post-learning monitoring so that the impact on learning is monitored.

Acknowledgments

We express our appreciation and gratitude to the Directorate General of Higher Education, Research and Technology, Ministry of Education and Culture, Research and Technology, which has provided support and assistance through funding programs for independent campus learning policy research programs and community service based on university research results. private sector so that the implementation and completion of this research. Likewise, we would like to thank the Research And Community Service Institutes of Narotama University for providing support and policy facilitation for the sustainability of this research.

References

Al-khafajiy, M., Baker, T., Asim, M., Guo, Z., Ranjan, R., Longo, A., Puthal, D., & Taylor, M. (2020). Comitment: A Fog Computing Trust Management Approach. Journal of Parallel and Distributed Computing, 137, 1–16. https://doi.org/10.1016/j.jpdc.2019.10.006

Alahdal, A., & Al-Ahdal, A. A. M. H. (2019). Effectiveness of collaborative learning as a strategy in the teaching of EFL. Opcion.

Alamanda, D. T., Hadiansyah, H., & Ramdhani, A. (2020). Rancangan Solusi Pengelolaan Sampah Dengan Konsep Focus Group Discussion (Fgd) Penta Helix Di Kabupaten Garut. JESS (Journal of Education on Social Science). https://doi.org/10.24036/jess.v4i2.270

Arianto, B. (2020). Pengembangan UMKM Digital di Masa Pandemi Covid-19. ATRABIS: Jurnal Administrasi Bisnis.

Ayodele, M., & Olalekan, H. (2017). Effects of collaborative learning styles on performance of students in a ubiquitous collaborative mobile learning environment. Contemporary Educational Technology.

Barceló, J. A. (2018). Chi-Square Analysis. In The Encyclopedia of Archaeological Sciences. https://doi.org/10.1002/9781119188230.saseas0090

Ching, G. S. (2012). Looking into the issues of rewards and punishment in students. International Journal of Research Studies in Psychology, 1(2), 29–38. https://doi.org/10.5861/ijrsp.2012.v1i2.44

Cohen, A. W. (2016). Competency. In American Journal of Obstetrics and Gynecology (Vol. 215, Issue 1, pp. 4–5). https://doi.org/10.1016/j.ajog.2016.04.045

Córdoba, P., Lieberman, N. R., Izquierdo, M., Moreno, N., & Querol, X. (2020). Understanding the impact of FGD technologies on the emissions of key pollutants in a Co-Firing power plant. Journal of the Energy Institute. https://doi.org/10.1016/j.joei.2019.06.012

Cortini, M. (2014). Mix-method research in applied psychology. Mediterranean Journal of Social Sciences. https://doi.org/10.5901/mjss.2014.v5n23p1900

Dirjen Dikti. (2021). Buku Panduan Indikator Kinerja Utama Perguruan Tinggi (Issue 021).

Fitriasari, N. S., Apriansyah, M. R., & Antika, R. N. (2020). Pembelajaran Kolaboratif Berbasis Online. Inspiration: Jurnal Teknologi Informasi Dan Komunikasi. https://doi.org/10.35585/inspir.v10i1.2564

Horal, L., Korol, S., Havrylenko, M., Khvostina, I., & Shyiko, V. (2020). The Management of Business-Processes Strategic Sectors of Economy on Digital Transformation Conditions. https://doi.org/10.2991/aebmr.k.200318.030

Jimenez, F., Kanoh, M., Yoshikawa, T., & Nakamura, T. (2020). Learning effect of collaborative learning with robots speaking a compliment. Journal of Advanced Computational Intelligence and Intelligent Informatics. https://doi.org/10.20965/jaciii.2020.p0396

Jonker, H., März, V., & Voogt, J. (2020). Curriculum flexibility in a blended curriculum. Australasian Journal of Educational Technology. https://doi.org/10.14742/ajet.4926

June, R. (2010). Competency and competency frameworks. Agenda, July, 1–5.

Kassarnig, V., Mones, E., Bjerre-Nielsen, A., Sapiezynski, P., Lassen, D. D., & Lehmann, S. (2018). Academic performance and behavioral patterns. EPJ Data Science. https://doi.org/10.1140/epjds/s13688-018-0138-8

Männistö, M., Mikkonen, K., Kuivila, H. M., Virtanen, M., Kyngäs, H., & Kääriäinen, M. (2020). Digital collaborative learning in nursing education: a systematic review. In Scandinavian Journal of Caring Sciences. https://doi.org/10.1111/scs.12743

Maria, N. S. B., & Widayati, T. (2020). Dampak Perkembangan Ekonomi Digital terhadap Perilaku Pengguna Media Sosial dalam Melakukan Transaksi Ekonomi. Jurnal Konsep Bisnis Dan Manajemen, 6(2), 234–239. https://doi.org/10.31289/jkbm.v6i2.3801

Marisda, D. H., & Handayani, Y. (2020). Model Pembelajaran Kolaboratif Berbasis Tugas Sebagai Alternatif Pembelajaran Fisika Matematika. Prosiding Seminar Nasional Fisika.

Meiryani, Bening, D. A., Warganegara, D. L., & Pertiwi, S. A. (2020). The influence of employer reputation and professional recognition on student interest become public accountant. Systematic Reviews in Pharmacy. https://doi.org/10.31838/srp.2020.6.37

Mustakim, Trisnaningsih, & Adha, M. M. (2021). The Effectiveness of Online Collaborative Learning During Covid-19 Pandemic. https://doi.org/10.2991/assehr.k.201230.115

Psaltis, A., Apostolakis, K. C., Dimitropoulos, K., & Daras, P. (2018). Multimodal student engagement recognition in prosocial games. IEEE Transactions on Games. https://doi.org/10.1109/TCIAIG.2017.2743341

Rahman, N. S. A., Handayani, L., Othman, M. S., Al-Rahmi, W. M., Kasim, S., & Sutikno, T. (2020). Social media for collaborative learning. International Journal of Electrical and Computer Engineering. https://doi.org/10.11591/ijece.v10i1.pp1070-1078

Resch, K., Knapp, M., & Schrittesser, I. (2021). How do universities recognise student volunteering? A symbolic interactionist perspective on the recognition of student engagement in higher education. European Journal of Higher Education. https://doi.org/10.1080/21568235.2021.1919170

Rong, C., Ma, J., Shi, Q., & Wang, Q. (2021). The simple mix design method and confined behavior analysis for recycled aggregate concrete. Materials. https://doi.org/10.3390/ma14133533

Sarwar, B., Zulfiqar, S., Aziz, S., & Ejaz Chandia, K. (2019). Usage of Social Media Tools for Collaborative Learning: The Effect on Learning Success With the Moderating Role of Cyberbullying. Journal of Educational Computing Research. https://doi.org/10.1177/0735633117748415

Sathiya Priya, T., & Shilaja, C. L. (2016). Collaborative learning. Man in India. https://doi.org/10.5367/000000000101294922

Shinoda, M., & Nishioka, K. (2019). Enhancement of Students' Recognition for Fundamental Competency Factors through Extra-Curricular Project Activities in University. International Journal of Information and Education Technology. https://doi.org/10.18178/ijiet.2019.9.7.1257

Sinicki, A. (2019). Ecommerce Platforms. In Building and Growing an Ecommerce Store. https://doi.org/10.1007/978-1-4842-5660-2_2

Sugiyono. (2018). Metode Penelitian Kombinasi (mixed Methods). In International Journal of Physiology (Vol. 6, Issue 1).

Trigueros, R., Padilla, A., Aguilar-Parra, J. M., Mercader, I., López-Liria, R., & Rocamora, P. (2020). The influence of transformational teacher leadership on academic motivation and resilience, burnout and academic performance. International Journal of Environmental Research and Public Health. https://doi.org/10.3390/ijerph17207687

Weinberger, Y., & Shonfeld, M. (2020). Students' willingness to practice collaborative learning. Teaching Education. https://doi.org/10.1080/10476210.2018.1508280

Wijngaards-de Meij, L., & Merx, S. (2018). Improving curriculum alignment and achieving learning goals by making the curriculum visible. International Journal for Academic Development. https://doi.org/10.1080/1360144X.2018.1462187

Yankees, R. S. (2011). Cross Tabulation Analysis. Qualtrics, Ico.

Biographies

Arasy Alimudin is an Associate Professor of Strategic Management at Narotama University of Surabaya and the Head of Steering Committee of the professional certification body for human resource management. He was the Dean and Chancellor of Narotama University, Founder and general secretary of the academic leadership forum of Indonesian private universities, his research fields were strategic management, digital economy and business, human resources, management information systems of small medium enterprise.

Agus Sukoco is an Assistant Professor in the field of entrepreneurship at Narotama University Surabaya and Head of the Management Graduate Program, his research interests so far are entrepreneurship development.

Achmad Zakki Falani is an Assistant Professor of Informatics Engineering at Narotama University Surabaya and practitioners in the field of information technology, his research interests so far are the development of information technology and management information systems.

Ani Wulandari is an Lecturer of Management Undergraduate Program at Narotama University Surabaya and Director of International Relations Office, her research interests so far are strategic management and marketing.

Joko Suyono is a lecturer at Narotama University, Surabaya, Indonesia. He got bachelor degree in business administration form Universitas Terbuka (Open University) and also accounting from Narotama University, he got master degree in industrial management from Insttitute Teknologi Adhi Tama Surabaya, and also in marketing management from STIE Mahardhika, and he got doctoral degree in management majoring in human resource management from Universitas Airlangga, Indonesia. Prior becoming a lecturer, he is a practitioner as senior manager in some multinational corporations such as Stanley Works Indonesia (USA Company), Ericsson Indonesia (European Company) and Lotus Indah Textile Industries, a multinational company in the textile, spun yarns.