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A Concept - The Eleven Stages of University: How to Implement A Combination of Gamification-Board game-Metaverse-AI

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Abstract

Technology is developing rapidly, and we need significant changes. One of them is the University. Universities are one of the pillars of the Country's progress, but not only this, the most basic level of education, from elementary school to higher levels, requires change. If we do not change and open our minds and eyes to change, we will not be able to deal with this long-term. Therefore, this concept research was done, and one of the most important reasons is "a significant change in all the ways we educate." This research is a development of the concept of the seven stages of maturity level inside a University, which is the basis for developing the next idea, namely the new average University, which consists of eight stages. In researching this concept, we will go through eleven stages, starting from gamification (step nine), board game (step ten), and metaverse (stage eleven).
Further research has continued. There is still the final stage to complete this concept, which we will make after this research is thorough. The results of this study are the framework and the maturity level of University Profiling 2.0, which will become the basis for implementing gamification, board games, and metaverse in universities. They can even be applied in the most basic and advanced education. Remember: Change can only occur when human resources, habits/culture, and information technology/infrastructure are ready. We must keep these three things separate in building a high-quality education.

Keywords: University, Education, Metaverse, Gamification, Board Game

Abstrak

Teknologi berkembang dengan pesat, dan kita membutuhkan perubahan yang signifikan. Salah satunya adalah Universitas. Universitas merupakan salah satu pilar kemajuan Negara, namun tidak hanya itu, jenjang pendidikan paling dasar, dari sekolah dasar hingga jenjang yang lebih tinggi, juga memerlukan perubahan. Jika kita tidak berubah dan membuka pikiran serta mata kita untuk perubahan, kita tidak akan mampu menghadapinya dalam jangka panjang. Oleh karena itu, penelitian konsep ini dilakukan, dan salah satu alasan terpentingnya adalah "perubahan yang signifikan dalam semua cara kita mendidik." Penelitian ini merupakan pengembangan dari konsep tujuh tahap tingkat kematangan dalam sebuah Universitas, yang menjadi dasar untuk mengembangkan gagasan selanjutnya, yaitu Universitas rata-rata baru, yang terdiri dari delapan tahap. Dalam meneliti konsep ini, kita akan melalui sebelas tahap, mulai dari gamifikasi (tahap kesembilan), permainan papan (tahap kesepuluh), dan metaverse (tahap kesebelas). Penelitian lebih lanjut terus dilakukan. Masih ada tahap akhir untuk melengkapi konsep ini, yang akan kita buat setelah penelitian ini tuntas. Hasil dari penelitian ini adalah kerangka kerja dan tingkat kematangan University Profiling 2.0 yang akan menjadi dasar penerapan gamifikasi, permainan papan, dan metaverse di perguruan tinggi. Bahkan, dapat diterapkan di jenjang pendidikan paling dasar dan tingkat lanjut. Ingat: Perubahan hanya dapat terjadi jika sumber daya manusia, kebiasaan/budaya, dan teknologi/infrastruktur informasi telah siap. Ketiga hal ini harus kita pisahkan dalam membangun pendidikan yang bermutu.

Kata kunci: Universitas, Pendidikan, Metaverse-AI, Gamifikasi, Permainan Papan

I. INTRODUCTION

One organization may perceive IT as a 'necessary evil' to stay in business. At the same time, another may see it as a significant source of strategic opportunity, seeking proactively to identify how IT-based information systems can help them gain a competitive advantage. Regardless of the stance, once an organization initiates this kind of investment, there is little chance of a return. It has become more powerful and relatively cheaper, and its use has spread rapidly across organizations. Different levels in the management hierarchy now use IT, where

Previously, the only domain was operational. The goal now is not only to increase efficiency but also to increase business effectiveness and to manage the organization more strategically. As managerial tasks become complex, the nature of the information systems requires changes – from structured, routine support to ad hoc, unstructured, complex investigations at the highest levels of management. This sentence tells us an organization can thrive if it consistently adopts and applies the right technology.

Another thing is that things that are general and global can run following standard operating procedures that have been made following the vision and mission of the organization. Education is one of the essential pillars in any organization, with a broad scope, especially in innovation and matters that impact society at large. We recommend three must-read books before understanding this concept research:

1. Howard Gardner, (2009). Five Minds for the Future, Harvard Business Review Press[1]
2. Jeffrey Liker, (2020). The Toyota Way, Second Edition: 14 Management Principles from the World's Greatest Manufacturer, McGraw Hill; 2nd edition[2]
3. l Simon, (2011). The Age of the Platform: How Amazon, Apple, Facebook, and Google Have Redefined Business, Motion Publishing; 1st edition[3]

We see that eight critical things need to be implemented in education, especially at the university level: (1) Resilience, namely the ability to deal with pressure; (2) analytical and procedural approaches; (3) Ability to build good working relationships and apply practical interpersonal skills when dealing with people of all levels; (4) Good level of business/commercial awareness; (5) Well organized, flexible and numerical; (6) Ability to negotiate, influence, listen and ask questions; (7) Excellent oral communication skills and having the ability to switch from one type of situation to another quickly, adapting the communication style as needed; (8) Integrity and approachability, must be able to discuss sensitive and c dential matters with you. Of these eight critical things, the development of human resources is one of the factors that must be continuously developed to support the existing system.

Several studies say: (1) Future research should focus on study designs that are better able to show a causal order to demonstrate that human resource practices, when applied correctly, can positively result in higher company performance[4]; (2) Introducing a New Perspective on Virtual Human Resource Developme . These aspects of the definition show two crucial points. First, HRD professionals use a combination of ideas, techniques, and approaches. Second, learning is vital for performance at multiple organizational leve from the individual to the larger collective. HRD is a learning system that uses formal learning, such as classroom-based learning activities and simulations that foster representative learning, as well as informal learning, such as experiential and job-based learning. In practice, building a learning system within an organization involves negotiating with various stakeholders who have a stake in the system. Acceptance of new technologies and achieving utility means involving users in design choices at different iterative stages; however, organizations must have the learning capacity deal with the changes brought about by technology. Moving beyond essential acceptance, organizations can focus on today's complex systems' strategic and sometimes challenging aspects[5],[6]. Next, regarding research, the collection methods are surveys and interviews[7]

So, where does this conceptual research want to go? One of the most important things is that we must be able to see the big picture in advance that the most fundamental problem in education is "many." Why don't we want to mention them one by one? This is because each University has complexity in the issues that exist according to the culture built by each University. However, we are not here to focus on issues; problems will always exist, and we need a solution to this big problem. Therefore, this research goes through several critical stages, starting from the seven steps of University (the maturity level), where we discuss the characteristics of the University, which has seven essential elements, and seven classes, where we will find out whether the University is ready to face challenges. Globalization and producing what is needed by the industrial world must even be able to contribute positively to society. Therefore, we re developing this concept research again to become a new regular university, called the eight stages of University, where we discuss how we deal with extraordinary cases such as pandemics. In this concept research, we will now focus on how to apply metaverse, gamification, and board games to improve quality and efficiency in learning and improve it by combining these three things. We named these the eleven stages of University. Of course, the research on this concept has yet to be finished. We will continue it at the final stage, which we will call the twelve steps of University. After the idea is perfect, we will make a prototype or a unique application to complete the concept. We have explained. It can be described as follows:

Figure 1: Research-Concept The Maturity Level

What are the results of this concept research? The maturity level of the University (The eleven stages of

University). We will develop it into a higher s by applying gamification, board games, and metaverse in the teaching and learning process. Is this possible? The answer is yes! Why? (1) if there is no change, then we will never change; this is no longer about the system or anything we want to argue about without a solution; this is about change, and change must be done. It is not that we do not want to change, but we do not want to and are only looking for comfort with the teaching and learning process we only know so far. Therefore, the solution is to apply new methods so that the teaching and learning process becomes more targeted; (2) human resources must also be prepared, not only focusing on degrees but also other competencies that must be developed, namely the ability to complete projects and orientation on things that can make everything efficient and not become too much Unnecessary administration; (3) strong collaboration. Unique groupings are essential to developing strengths and covering each other's weaknesses. We cannot do everything, but together, we can. Everyone will run in place if we walk separately, but it always leads to a different vision. It is absolute and must be done, namely supporting the idea implemented by the University and orientation to process and results, not separating the two things

II. RESEARCH METHODOLOGIES

Figure 2: The process of research – from the seven stages to the eleven stages (The maturity level of the University)

Figure 2 explains that this concept research starts from an in-depth analysis combined with experience and surveys conducted. The stages of this research begin with understanding "what needs to be taught," not "what you want to hear." These two things are very different. If we only teach what we want to hear, we will be very theoretical and give a few examples of what we know. In contrast, if we teach what is necessary, we can understand what focusing on the future and development is. Competencies that should be and what things students should know in the future (this includes teaching based on a combination of visible and invisible knowledge). The first picture has three levels: Level 1 has five essential sections: technology, socio-cultural, politics of law, market, and economy. It can be explained in great detail as follows: in the field of technology, the most significant developments, and those that have the greatest impact on the entire university landscape, are the creation of technology, the emergence of technology networks, and the speed of access and information. Universities, in this case, must be able to keep up with technological changes and must be able to adapt and apply developing technologies. In the social/cultural field, the easy flow of information is obtained with technological advances. Everyone can get information about the products and services they offer. This shift leads to "information," The word consumer here includes internal and internal university consumers, which provides for students as external consumers and lecturers as internal consumers. This change begins with three essential processes: the traditional pattern that focuses on the need for good education, leading to what is desired. University has facilities and faculties with the highest competence, then is the expectation that to be achieved - by being fulfilled both this is the hope to be better in the future will be completed. On the political/legal side, the government should make educational rules easy, practical, and synchronously interconnected, creating a corporate resource planning system at the university level. The market-university side must be able to increase value so that people can get their needs right and not only focus on obtaining high value but must be balanced with high ability. Finally, the economic side, which is increasing competition, must be faced by every University. The strength of the university brand can increase economic value. Still, the brand will become a great strength when the human resources produced by the University are human resources that have a high value. In the market and fulfill global needs. In stage 2, there is a university cycle and globalization. Universities must keep up with existing global changes and have highly competent lecturers. If universities own lecturers, universities will inevitably be able to compete in the current global era. Universities and globalization mean that the University's ability to improve existing systems and competencies is made more effective in providing full service to students and lecturers, where students can get the things they need when they graduate from the University, but this must be balanced with lecturers who have high ability in teaching and sharing knowledge that every student needs to have. Universities must be able to open "eyes" as far as possible, as global needs require the ability to have "invisible knowledge" and "visible knowledge."

Next, we must understand the four types of lecturers; here, we use the Johari windows method. The explanation is as follows:

Figure 3: Johari window[8]

Figure 3 explains the Johari Windows method, which has four important things: (1) Open-showing behavior, feelings, and motivations known by ourselves and others. As a result, lecturers can understand their strengths and weaknesses, take the initiative to develop themselves, and

positively influence teaching so that students gain general and specific valuable knowledge for their future. In addition, lecturers have projects or have worked to balance theory and practice[9], [10]

(2) Blind- refers to behaviors, feelings, and motivations that others know but not ourselves. Lecturers at this stage have fairly good abilities but need to gain experience in practice. The communication and learning process is good but requires increased field practice or experience competency. Therefore, this type of lecturer requires many projects that follow his competence so that he can develop his expertise will be able to provide accurate case study examples to students

(3) Hidden- refers to behaviors, feelings, and motivations that are known by ourselves but not by others. This type of lecturer requires more training and self-development than the other two types. Lecturers at this point are those who have just started as lecturers or have worked for a long time but have yet to develop their ability to keep up with globalization developments. It takes considerable effort to be able to build and change it, namely time (for the new) and the desire to change (for the old)[10],[11]

(4) Unknown refers to behaviors, feelings, and motivations unknown to ourselves or others. This type of lecturer wants to stay the same and wants to develop. The focus is on getting what we want without increasing our competence, so when we occupy a position at a university, we tend to be authoritarian. His communication skills are not two-way; he is more inclined toward himself and for the sake of his interests. He does not focus on how to make a positive contribution to the University students and society, only concentrating on what position he will get and what he wants[12]

After we discuss the big picture of the four types of lecturers, a formula is produced:

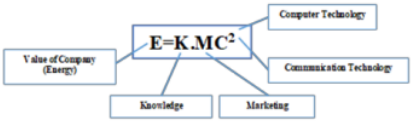


Figure 4: Formula $E=K.MC^2$

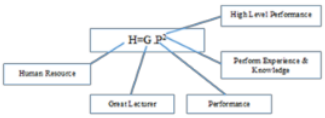


Figure 5: Formula $H=G.P^2$

E = K.MC2-E (E-energy (company value), K (knowledge) - organizational skills in increasing knowledge M (Marketing) - organizational capabilities in market interactions with customers in commercial market interactions with employees in competence- interactions with shareholders shares in the capital market C2 (C1: Computer Technology & C2: Communication Technology). This formula was developed to become $H=G.P^2$. Then, it is set again to become S = K.M2.

We already know four categories of lecturers: open, blind, hidden and unknown. If we combine the three formulas, it can be described as follows:

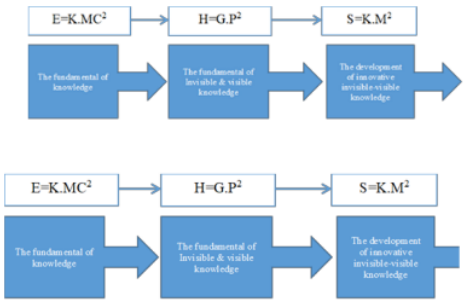


Figure 6: The combination of the three unique formulas increases the lecturer's competence

Figure 6 explains that the basic formula is fundamental to knowledge. Lecturers must have values within themselves, whereas lecturers must know about information technology. Marketing ability means that lecturers have good communication skills, such as delivering material that students can easily understand, being able to increase student-specific knowledge for their future, and being able to promote the University where they work. Furthermore, lecturers must also have a balance between general and particular knowledge, where lecturers have to practice what they teach so that students will get things that need to be heard after graduation and are ready to face the objective reality in the world of work. Finally, this formula is the highest process in increasing competency to contribution. S: Super (High) Quality Human Resource Inside University; K: Knowledge (Invisible & Visible); M: Marketing; M1: Marketing explosion; M2: Wise marketing. Lecturers must produce products/services that the community can use.

These can be tangible products/services that can be used long-term or concepts that can be implemented to increase the University's name. It maintains a balance between academic abilities and experience, which will be helpful in the teaching and learning process so that students will benefit significantly in developing themselves in the future.

Next is the seven stages of University (the maturity level), which will be explained in more detail in the discussion section, and likewise the eight stages of University, the context of which is a new regular university (specifically for this research, you can read it in full in the references we provide). Furthermore, this concept was developed in eleven university stages, including gamification, board games, and the metaverse. We will continue to develop this concept, where the peak will be the twelve stages of University.

In this eleventh stage, this concept research will

survey 100 participants (lecturers, students, permanent employees, and some company owners; of course, we will maintain the privacy of these data according to their request). The question is as follows:

Question 1: Can your degree now provide you with sufficient skills to face the realities of the world of work?
a. Not at all
b. No
c. Hesitating to answer
d. Sufficient but needs further development to complement what has been obtained when completing education at the university level
e.It is sufficient and meets national and international standards

Question 2: What degree do you have now?
a. College
b. Diploma
c. Bachelors
d. Masters
e. Ph.D. (Doctor of Philosophy)

Question 3: Does the University where you complete your education provide a balance of general and specific knowledge?
a. Not at all
b. General knowledge
c. Special knowledge
d. General and specific knowledge is quite good, but still lacking in providing case study examples to complete the explanation
e.Very good at providing general and specific knowledge so that competencies needed in the industrial world can be achieved

Question 4: Does your University's information technology infrastructure support the implementation of gamification-board games and metaverse?
a. Not at all
b. Lab facilities do not yet support this
c. Facilities only support college training in general
d. Facilities only support one or two of these things
e. Facilities already support these three things

Question 5: Have the facilities at the University helped you in developing competence in terms of applying the latest information technology?
a. Not at all
b. Campus facilities are mostly just for activities in general
c.Facilities still need to be improved to support competency development
d. Facilities are good enough, but human resources still need to be improved
e.All facilities are ready and support competency development

Question 6: Do human resources meet international standards for dealing with developments in information technology, such as gamification, board games, and the metaverse?
a. Not at all
b. Human resources only supports one thing that has been mentioned
c. Human resources only support the two things that have been mentioned
d. Human resources are supportive but need to gain experience in the market
e. Human resources support and experience in the market

Question 7: What kind of teaching and learning process do you expect in the future?
a.Universities can develop information technology infrastructure such as building strong R & D and meeting the needs of industry and society
b. Universities can have human resources with general and specific knowledge
c.University can provide facilities in career development or mentoring in business development
d. Just a & b, or b & c
e. All (a,b,c)

III. RESULTS & DISCUSSIONS

III.1. Survey & Results

Question 1: 1 (a); 1 (b); 2 (c); 40 (d); 57 (e)
Question 2: 4 (a); 12 (b); 38 (c); 30 (d); 16 (e)
Question 3: 2 (a); 10 (b); 11 (c); 39 (d); 38 (e)
Question 4: 5 (a); 6 (b); 28 (c); 36 (d); 25 (e)
Question 5: 1 (a); 15 (b); 20 (c); 14 (d); 50 (e)
Question 6: 14 (a); 10 (b); 15 (c); 31 (d); 30 (e)
Question 7: 0 (a); 0 (b); 1 (c); 43 (d); 56 (e)

III.2. 3.2. The Seven & Eight Stages (The Maturity Level Of University Profiling 1.0)

The Seven Stages:

Seven elements: (1) vision, mission, and goals of the University in achieving what has been planned and achieving specific goals; (2) university organizational characteristics; (3) system standard operating procedures at universities; (4) the cultures set by the University - the conditions and circumstances that shape habits within the University; (5) the required lecturer staff and human resources; (6) ways to achieve the intended goal; (7) global goals - what values will be given to the world

Seven stages: (1) universities that are not controlled have no ability in management; (2) university funds build the needs needed to achieve the vision, mission, and goals; (3) development universities start building the human resources and systems necessary for the process to work; (4) an integrated system at the University, very well integrated and very minimal about complaints; (5) good universities - universities have adequate human resources but have not reached global level; (6) the best universities go global and make an impact; (7) global universities have an impact on companies/organizations/industries and people's lives in general.

Stage 1

The University still needs clarification about the hardware and software used. At this stage, the University is still in the very early process of finding the necessary infrastructure to build a university. Structure- The organizational structure must still be well established at this stage. They are still looking for people with the same competence and vision as the founders of the University. This stage can be called the initial stage of the organization, which forms a group of people with the same image and mission. At this stage, the system needs to be created, which needs to be better controlled and connected. The process of building a strategy and planning what kind of system will be implemented and how to implement it, as well as who will be invited to

work together in making this system. Culture- An organizational culture still needs to be formed; the environment is still unstable, and every decision rests with the founders of the University. All decisions are centralized: Staff searching for human resources with a high level of competence, meeting international standards, Negotiating to gain trust and cooperation, and Trying to ensure the same vision and mission as the founders of the University. Style- At this stage, there is no unique style, and the University's uniqueness can determine the level of success globally. Global The founders of the University are still looking for the University's highest goals, which are the process of determining the vision, mission, and objectives of the University.

Stage 2

At this stage, the University develops a vision mission, goals to be achieved every five years, and plans every 2.5 years. The vision-mission-goals are in the proper process if there is no need to change the method of attaining the vision-mission-goals for five years. Universities must revise their vision-mission goals every five years to adapt to global changes. Structure- The University starts to design the organizational structure to be used, whether flat, matrix, or corporate structure, according to the needs of national and international industries. The organizational structure must be made effective and efficient so that there are no overlapping interests and decisions; the University starts to define what system to use, database implementation, office-related systems, and software requirements that can be used to run processes in the University; the University cultures are critical to establish, develop and implement. It will become second nature and be transmitted to faculty, staff, and students, where this culture should build trust in one another, provide a stable authority of wise decisions, and enhance good character. Staff- The University has high-quality human resources, not only in terms of skills and competencies but also staff who can support the vision, mission, and goals set by the University. Working people no longer only have a diploma but a minimum bachelor's degree, and teaching staff, like lecturers, must have a master's degree minimum. The University must be able to delegate to the right person. The placement of people in the proper position, according to the field, will be critical. The authority must be clarified with a very detailed workbench. Autonomous rights are given to the right people with high emotional intelligence; university goals set the focus for the future. Universities must have something unique, where uniqueness will be the brand's strength at the national and international levels.

Stage 3

At this stage, strategy begins to develop. The University begins to determine what value must be achieved and what differentiation will be created, strengthening the University. Furthermore, starting to build faculties and departments is the main thing with all the unique items in it. Structure—The University began to form an organizational structure with several existing corporate model options, which would then be implemented.

Stage 4

The University began to build existing systems, administration, and standard operating procedures to be implemented in every faculty and department. Software and hardware are required. Need for laboratory: Cultural communication is still one-way, and university leaders will be busy controlling everything to ensure everything runs correctly. At this stage, a high level of supervision, trust, and communication must be adequately built and accurate. The university staff began accepting high-ability lecturers, and the Jim Collins method was applied at this stage. Lecturers must have abilities.

Stage 5

The University survives in competition with other universities at the local level; the Global University Goals are starting to impact society nationally.

University begins to build partnerships with other universities at the local level, with whatever needs have been determined. Student exchange between universities at the national level. Collaborating with overseas universities, adopting curricula to the national level, or choosing a curriculum that fits the University's needs in carrying out its vision, mission, and objectives. Structure- The University began to build more faculties and departments to expand its influence. System-Office is operating correctly; this system was created to provide good service to lecturers and students. Cultures of mutual need must be developed within the University, where each lecturer must work well together, build mutual trust, and improve each other's abilities. Share experiences with each other. Starting to develop partnerships with companies/organizations/industry at the national level and beginning to build lecturers and students, not only at the outer level but focusing on groups of knowledge that are not visible; Solid Global-Cooperation Goals for 5- and 10-year timeframes

Stage 6

Increase cooperation with national and international universities and build essential facilities to face globalization; Structure-Faculties and departments.

System-University has a well-integrated system. Complaints at the University have a minimum level, the online learning system has started, and students can interact with lecturers online. Cultures of mutual support are developed, in which people in culture and habits support those who deserve leadership positions based on ability and competence. The invisible and visible staff knowledge have a balance in the teaching and learning process in universities. Excellent collaboration between lecturers, mutually supporting research, and developing a focus to contribute to society by creating truly executable product/service innovations or creating new concepts - innovation concepts that will change mindsets to more positive; Global-University Goals can have a 50% impact on the city, where the University is founded and a global 40% impact spanning one overseas city or multiple cities. Strategy- The University has a "learning community" in which visible and invisible communities share knowledge. Furthermore, the University establishes a Research & Development center to develop and create products/services required by

companies/organizations/industries. The leadership of the University, facilities, and departments has leadership levels 5-5.5; the system has an excellent ERP (Enterprise Resource Planning) system, CRM (Customer Relationship Management), and SCM (Supply Chain Management) at the university level. A well-integrated system, excellent service for lecturers and students, effective and efficient distribution of targeted knowledge materials; culture university and the staff working in it have a habit of making positive contributions to society, creating product/service innovations that are useful and implementable to the community; create practical concepts to increase creativity and have positive experiences that can be transmitted to society; Staff-Have highly skilled staff: Master degree (visible knowledge) + visual knowledge; Ph.D. (visible) + invisible knowledge; administrative & operational staff must have a Master's degree (head of administration & operations); master-library degree (head librarian); professional staff in environmental hygiene and maintenance. In addition, working globally (which is part of the executive leadership program) can apply to students:

(1) Lecturers are concerned about students' increasing visible knowledge. For example, he respects the goals of life that he wants to achieve in the future. The lecturer helps direct them, guides and gives recommendations on what to read, need to know, gain experience, understand life correctly, and gain required knowledge for future career

(2) Lecturers are concerned that students will increase invisible knowledge. For example, lecturers and students work on and complete projects; thus, students will have direct experience applying their acquired knowledge. In addition, it will help students prepare themselves for the jobs and the future that lies ahead.

(3) Lecturers direct students about the green world. For example, natural resources must be maintained appropriately for economic improvement; this is one factor. The lecturer gave an example: if environmental damage occurs, then what happens next is that it can make living conditions worse. Of course, this section must be adjusted to the expertise and experience of the subject being taught by the lecturer

(4) Lecturers build a good culture, happiness, and togetherness. For example, lecturers can carry out social activities with students so that they develop empathy and sympathy. As a result, students have high-quality knowledge and a high social awareness of people in need. In addition, lecturers can do sports activities with students.

(5) Lecturers present case studies. Example: in the teaching and learning process in lectures, lecturers share and explain one or more case studies, which are information, data, and natural events that occur in life, so that students are invited to think of "solutions" and can develop their creativity in solving problems wisely

They are working together for the common good to achieve goals and contribute. Global Goals-On a national level, this University can impact 80% of the city where it is located. These impacts may include alternative products, innovative products, more effective and efficient services, helping people to utilize the environment as a source of life, and creating a culture of togetherness to create a better environment. Furthermore, at the international level, the University can produce products/services that are carried out internationally so that the products/services can be used internationally.

Stage 7-Strategy-University has a global/international impact in terms of innovation. This strategy must be strengthened by complementing the information available in the library and knowledge resources at the University. Educational resources applicable to level 7 strategy, including:

Study; high-quality thesis; data related to the latest technology and other things that can support progress in innovation; easy access to course materials; good online communication between lecturers and students, and all regarding the latest innovations; specific topics are needed in presenting directed information. At this stage, educational resources are the most critical part of the strategy because it will only be possible to innovate with sufficient knowledge and information. Innovation begins with knowing, understanding, having enough data, and observing so the real problem can be known. It will generate creativity to solve problems and create innovative products/services or new concepts that can help solve problems. Structure-organizations within the University are very well connected, where faculties can work together and between departments not only stand alone but can create mutual innovation of new products/services or concepts. It is imperative at level 7 because connecting makes new things. So far, if the faculty and departments at the University only stand alone and communicate poorly, the University will be at level 3 or 4. Level 7 is the highest level of University, where the power of management, the power of information technology, and the power of medicine can unite and create solutions; this is one example of level 7.

Every University should have a research & development center, which is then in every faculty and every department. Faculties and departments must be interconnected to carry out joint research, not stand alone; this will be a great innovation force in developing innovations. We know that every field of knowledge has unique things; if these can be linked and there is openness between thought A and thought B and other minds, then the organizational structure would be strong, and the exchange of information, ideas, and experiences will be very helpful in developing products/ new services and concepts. It can also be strengthened by working with universities at national and international levels. With globally connected systems, faculty and students can access other universities at national and international levels. At this stage, there are two systems related to the library, which is the primary source of information at the university level.

University A- system at the national level

The University has a library; when the library at University A does not have data/information/journals and things needed by lecturers and students, lecturers/students can get them from University B. System A only applies to universities located in the same city, lecturers and students have national library membership cards, which means lecturers/students can borrow from other

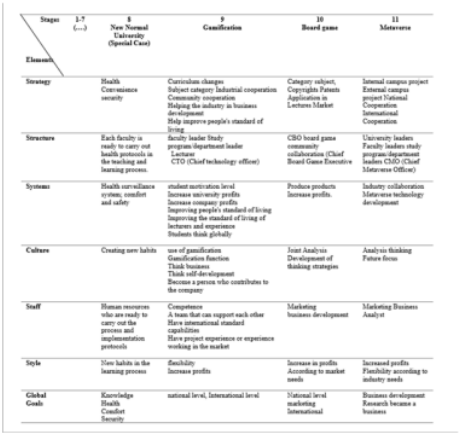
universities to obtain information/data. Standard operating procedures and cooperation must be carried out legally between universities A and B. At this stage, lecturers/students can still physically get textbooks/journals/information because they are still in the same city.

University B- system at the international level
Local universities work with other universities in other countries at this stage, but boundaries must be made. These restrictions include: (1) Universities in Country A cooperate with some universities in Country B, through which lecturers/students can gain access to the library; (2) the information obtained in digital form and can be downloaded or can be downloaded with a payment method agreed between universities; (3) standard operating procedures and inter-university agreements should be made as straightforward as possible to avoid problems.
At this stage, the University has succeeded in building a culture (environment) that is positive, comfortable, and communal. It means that lecturers and students must be able to create an academic environment that is truly academic and innovative. The university environment should be an open one. Here, it happens – open communication and open innovation:
(1) Lecturers have an open mind with other lecturers; they no longer feel great in their fields but want to work together and build good relationships with other lecturers with different abilities. It must be understood that there is no most extraordinary lecturer here; there are unique lecturers. Exchanging ideas and communication to create new products/services and concepts is crucial to building a global university environment. Lecturers must be able to respect each other's lecturers, with their uniqueness and abilities because mutual respect and respect will make innovative ideas. Fighting each other, feeling right, and having supreme knowledge will never solve the problem. At this stage, universities must be able to reduce lecturers who do not have good communication; friction does not have to be avoided but must be overcome by lowering the level of negative variance so that a positive university environment can be created. Intelligence is the ability to have visible knowledge that can be implemented into invisible knowledge, communicate well in face-to-face social media, appreciate the skills of others, and guide others to get good things for the future. The main focus here is what the University and society are capable of; self-esteem will come when we can provide the best for others, not just think about what can be obtained for personal gain. Positive contribution, giving the best for others, and leading others to a better future should be the focus of university level 7. It must be understood here that we should not demand perfection, but reducing the level of friction is harmful because it will always be negative. But the most important thing is not the problem but our attitude toward it
(2) students are also responsible for maintaining the university environment. Universities can form special groups to support, nurture, and shape the academic environment. Each lecturer can guide seven students in terms of invisible and visible knowledge; it will be able to shape character, mindset, and traits to develop to a whole maturity level. This concept will be discussed in future studies, a unique topic requiring more in-depth research. In addition, students who already have exceptional supervising professors because they are invisible and visible in terms of knowledge will be able to produce high-quality human resources.
Staff-At level 7, leaders from universities and representatives must have level 5 skills (minimum 4.5), and leaders in faculties and departments must have level 4 skills (or 4.5). It is to maintain leadership qualities and stability in invisible and visible knowledge. We know everyone has strengths and weaknesses; therefore, universities have a great responsibility to place people in the proper position, not on a close relationship, but based on their abilities; it must be implemented to maintain quality. In previous journals that discussed mentoring management, universities can carry out special tests such as the level of trust to determine whether the person can be trusted as a leader and can guide lecturers who work in their responsibilities. Close abilities and relationships are critical here, but skills for invisible and visible knowledge are far more crucial. Style: At this stage, the University is open-minded and open to new ideas that can be implemented at the university level and in society. Solid and sustainable cooperation with national/international companies/organizations/industries continues to be carried out, and we continue to try to find a better way. This stage combines the concepts of democracy and entrepreneurship.
Global Goals-At this stage, the University has several critical global goals:
(1) Creating and contributing to society by creating innovative new products/services and concepts
(2) Applying it to society
(3) Create and shape an academic culture where openness and discussion of new things together create innovations that can make people's lives better
(4) Producing high-quality human resources who have balanced and invisible knowledge
(5) Good communication at University and social media
(6) Creating a global, integrated library system
(7) Administrative, operational, and high-quality staff; this is the level of management to consider because the team needs good administrative and operational skills to impact the University's service level internally and internationally positively.

The eight stages:
can be read on the website: http://journal2.um.ac.id/index.php/dart/article/view/26909 (the concepts of new regular University & how to design new regular social media: extraordinary case-covid 19)

III.3. 3.3. The Eleven Stages of University (The Maturity Level Of University Profiling 2.0)

Table 1: The Eleven Stages Of University (The Maturity Level)



Stages / Elements	1-7 (....)	8 New Normal University (Special Case)	9 Gamification	10 Board game	11 Metaverse
Strategy		Health Convenience security	Curriculum changes Subject category: Industrial cooperation Community cooperation Helping the industry in business development Help improve people's standard of living	Category subject. Copyrights Patents Application in Lectures Market	Internal campus project External campus project National Cooperation International Cooperation
Structure		Each faculty is ready to carry out health protocols in the teaching and learning process.	faculty leader Study program/department leader Lecturer CTO (Chief technology officer)	CBO board game community collaboration (Chief Board Game Executive	University leaders Faculty leaders study program/department leaders CMO (Chief Metaverse Officer)
Systems		Health surveillance system; comfort and safety	student motivation level Increase university profits Increase company profits Improving people's standard of living Improving the standard of living of lecturers and experience Students think globally	Produce products Increase profits.	Industry collaboration Metaverse technology development
Culture		Creating new habits	use of gamification Gamification function Think business Think self-development Become a person who contributes to the company	Joint Analysis Development of thinking strategies	Analysis thinking Future focus
Staff		Human resources who are ready to carry out the process and implementation protocols	Competence A team that can support each other Have international standard capabilities Have project experience or experience working in the market	Marketing business development	Marketing Business Analyst
Style		New habits in the learning process	flexibility Increase profits	Increase in profits According to market needs	Increased profits Flexibility according to industry needs
Global Goals		Knowledge Health Comfort Security	national level, International level	National level marketing International	Business development Research became a business

Stage 9 Gamification

Strategy- Curriculum change; subject category; industrial cooperation; community cooperation; assisting the industry in business development; helping improve people's standard of living.

The strategy in this section can be explained as follows: (1) we analyze what curricula can be implemented with gamification. Therefore, it is necessary to change the curriculum. For example, a customer relationship management (CRM) course can be implemented with gamification. CRM is a subject that can be applied and developed. (2) Next is industrial collaboration, where the University cooperates with the industry by asking what needs are desired, and then the University helps the industry/company make gamification. It has an advantage: university teams will be able to gain hands-on experience (which also answers the question of how to increase invisible knowledge, i.e., experience). There are also benefits for lecturers, students, and industry, where this gamification project will generate profits and profit sharing, which is fair for all parties. Finally, (3) collaboration with the community is also essential because this will help the community in terms of promotion and increasing consumer loyalty. For example, a neighborhood in a village has a mid-level business, and a university team and the community work together to create gamification so that it will help the company with consumer loyalty, promotions, and many other things. From this explanation, it can be described as follows:

Structure-faculty leader; study program/department leader; lecturer; CTO (Chief technology officer).

We all know what the organizational structure of a university is like, but here, a slight overhaul of the corporate system is needed. The question is: will this reduce effectiveness and efficiency? Furthermore, will this cost more? The answer is no! Back to the strategy, there is profit sharing; this is the answer, where the University will gain profits from the collaboration it does. Therefore, do not worry about the problem. The organizational structure here added the CTO (Chief Technology Officer), who leads the CBO (Chief Board Game Executive) and CMO (Chief Metaverse Officer). The CTO here has a critical role, which has job desks as follows: making a roadmap for what the University will do, making a business plan, expanding cooperation with industry and society, selecting solid management teams, maintaining the confidentiality of data, developing resources man. It is a big picture for the CTO, which will help the University expand and design internationally. Therefore, the role of the CTO is very much needed and necessary. The CTO is equal to the vice chancellor, and if we want efficiency, then the position of the vice chancellor for international relations is replaced by the CTO.

Systems- level of student motivation; increasing university profits; increasing company profits; improving people's standard of living; improving the standard of living of lecturers and experience; students think globally.

In the system, this is already related to the implementation and implementation carried out in university business processes. For example, (1) the level of student motivation. So far, we have implemented a teaching and learning process with an existing system, but imagine when we apply gamification to the CRM subject. It will replace the midterm and final semester exams and assignments; students will be given gamification to complete projects. It can be seen in the strategy section of the link. (2) increasing university profits, increasing company profits, improving people's standard of living, improving the standard of living of lecturers and experience. These things can happen based on the cooperation results; therefore, development is needed to benefit all parties. Education is about how to develop oneself, develop others, change the future of others, develop character, and much more. Those things are justified, but we must remember that everyone needs certain things and clear things for his future. Therefore, this system will help at the start so that innovation and any business can be created in a form that may be the same, different, or unique, but the point is to increase profits and the people's standard of living. (3) students think global is absolute and essential. It is very much needed for their future. We are no longer obliged to carry out the teaching and learning process in the "same" and "boring" way, but we must be able to develop a higher level by using gamification. A question was asked when we presented at an international conference: "Does it take a long time and effort to create gamification for each subject?" we want to explain it here. The use of gamification is not complex and a waste of time; using gamification in the teaching and learning process will be able to increase the level of thinking, analysis, and learning motivation, where through gamification, a sure simulation will be created, which will be able to train and develop competencies. Students in a more exciting way. For the problem of making it, remember that not all subjects can be applied; as we said earlier, only particular issues and then collaborate with industry and the community, so we work

with teams. It is a responsibility that must be carried out regarding extensive efforts, but remember that we want to generate profit. It can be called a project that must be supported, and special funds must be obtained and profit shared with parties who have agreed to it. Gamification at the university level can be implemented, provided the human resources are genuinely ready and infrastructure such as solid research & development with sufficient information technology facilities.

Culture- the use of gamification; gamification function; business thinking; think self-development; Become a person who contributes to companies, universities, and society.

At this stage, we build habits in the teaching and learning process and all processes at the University. Lecturers and students already habitually use gamification in all existing business processes. Lecturers and students think that research becomes a business, not only education or research to study. Here, lecturers and students have a soul to contribute to themselves, the University, companies, and society. In this case, we must improve ourselves, have new habits that generate enthusiasm, and create initiators to change. Gamification is one thing, we can change that, and there is no bullshit here; it is not that there is no time to change. Therefore, developing thoughts and habits to benefit others[13], [14]

Of course, it takes time because changing a habit is a long-term process. However, change can only happen if three things are done: a supportive environment, available and complete facilities, and excellent two-way communication. If only two or one of these occur, the changes will encounter obstacles or take a long time to implement.

Staff- competence; a team that can support each other; have international standard capabilities; Have project experience or experience working in the market.

This section is critical, where human resources must be ready, and everything should be clear about the process to be carried out. Teams should be able to support each other in terms of competency and develop each other; this is ideal; in practice, there will be unnecessary "little/much friction," which requires strong leadership to organize the team. Most people in the group must have experience. Before becoming a lecturer, the person must have worked on a specific project or had experience working in a particular company/organization/institution. Why is this necessary? Because it is about mindset. It needs to be acknowledged that people who already have experience in the field and those who have never had experience in the area will have a different way of working and contributing. Here, we will see motivation from within. Of course, we are not explaining psychology or human literacy here. Still, we want to convey that having experience will make a difference in how we see the future and work together compared to people who do the same monotonous activity. This explanation is very long; if we want to go into detail, we only explain the big picture here.

For example, universities must also use gamification, and all stakeholders must use it to improve habits and slowly change organizational culture.

Style- flexibility; increase profits.

In this case, universities must have high flexibility and orientation to increase profits. The number of students is significant, but this will increase when universities create products/services that strengthen their promotions. (Notes: re-read the section above about the three formulas in the seven stages). Everyone at the University is a skilled marketer and salesperson; forget about introverted and extroverted characters; this is just an excuse. The most important thing is that if we feel we belong and that this University is where we work, we must contribute by helping develop the University by producing products/services, including gamification for the teaching and learning process. (Notes: A detailed explanation can be found in the Journal of the Seven Stages of the Educational Game, IEEE).

Global Goals- national level; international level.

These are the ultimate goals: (1) to produce gamification for several courses that can be linked to the needs of industry and society; (2) to industrial cooperation, assisting the development of gamification for industry; (3) to assist community business development by using gamification; (4) universities act as consultants and generate profits; (5) an added organizational structure to be able to deal with change and manage it well; (6) a team that supports each other and is solid; (7) changes in mindset, habits and creating new habits.

Stage 10 Board Game

Strategy- Subject category; Copyright; Patent; Implementation in Lectures; Market.

In this section, as previously explained, the study program must be able to categorize what subjects can be made into board games. Why do you have to make a board game? It is to increase the creativity of lecturers and students. However, it needs to be understood that not everyone understands board games, and not all can be implemented. So, this is a limited strategy that will be executed when needed and if there is a special request from the parties who need it.

When a board game is successfully created on a number of these subjects, of course, this must be filed for ownership rights, and patents or copyrights are produced. So why does it say limited application here? We will answer with an example: entrepreneurship can use a board game because this subject covers an extensive area. For example, making a board game for culinary purposes can be done.

Structure- Board game community cooperation; CBO (Chief Board Game Executive).

In the organizational structure section, we all know the general standard of the organizational structure. However, at the university level, the organizational structure also has a fixed basis. Here, there is a CBO (Chief Board Game Executive) who has a job desk, such as communicating with the board game community, assisting in marketing board games, developing board games within the scope of the University, designing board

games within the range of the national and international levels, guiding students in making board games, guiding lecturers in making board games, board game needs for the industry. Here, the CBO works with others but has a special team to help with these matters[15],[16].

Systems- Produce products; Increase profits.

It relates to producing board games that benefit several parties: lecturers, students, universities, industry, and society. Why? The resulting board game can be used as a training tool and sold on the market to provide profits. In this section, it is necessary to understand that there will be calculations in the distribution of profits obtained from the sale of board games or fees for special consultants for making them.

Culture- Mutual Analysis; Development of thinking strategies.

When board games are implemented at the university level, students can train themselves for the level of analysis. Togetherness is a perfect thing, which can change many things, and is a good habit that will improve communication, empathy, and other positive character development and attitude. In developing thinking strategies, students can think more critically because board games will increase the level of analysis and develop deeper thinking.

Staff- Marketing; business development.

In this section, previously explained, a CBO (Chief Board Game Officer) is needed as the primary person responsible for developing board games at the university level. Furthermore, CBOs and a solid team that can work together with the board game communities are needed. Therefore, several changes are required to increase the effectiveness and efficiency of the designed organizational structure. Each team's job desks must be clarified, do what they are responsible for, and have targets to be achieved. Groups such as board game designers, lecturers, students who already have businesses, students who do not have companies, and marketing for board games are urgently needed so staff can develop stably.

Style- Increased profits; Flexibility according to market needs.

The style of this process is how we flexibly cooperate with the market to increase profits. It has been understood that some of the subjects in the course will be central to the development of board games, leading to different results in the variety of board games. Board games here will be produced following the demands of what is desired by the company or community needs. When the board game is finished and ready, many positive things will be obtained, such as providing profits for lecturers and students because there will be profit sharing with the company. Here, the company will also gain profits because promotions can be carried out by selling board games. Next, the community will be assisted by board games; they will profit from selling them and help promote their business.

Global Goals- National level marketing; International

In this section, board games can be marketed nationally and internationally. It will help companies and the public continue to develop board games in various variations. Therefore, it is essential to understand that the teaching and learning process must focus on how to provide profits to multiple parties and not only focus on research. We will repeat this sentence: research becomes a business, not only research becomes research and only non-profit. Therefore, we must change our perspective, look further than we should, and see that everyone's needs have changed significantly. Thus, education must adopt new ways to develop these continuously.

Stage 11 of the Metaverse

Strategy- Internal campus project; Campus external projects; National Cooperation International Cooperation.

We have reached the culmination of the eleven stages of University, and this implementation will include a mix of gamification, board games, and the metaverse. First, as already explained, gamification and board games are essential in teaching and learning. We will not explain how to implement them here because it will take a long time, but if we meet, we will explain in detail how to implement these three things.

We must see first that cooperation, motivation, effort, and human resources must be ready for all these things. If these things are not prepared, we will never be able to apply these three things. The strategy here must focus on providing profits to universities, industry, society, lecturers, and students. We no longer see education as a means of dedication without capital and gaining nothing. Everyone needs self-development and changes in life and the future; this is the objective reality. So this must be done and applied for a change in the future.

The most important thing is what subject category is used to be in the curriculum. For example, we categorize CRM, SCM, and ERP into one section, where these three subjects must be analyzed in more depth and connected to the industrial world and community needs. Then, if the company needs to help develop gamification, the University can accept it as a consultant and a project regarding board games; this can be used in learning processes and simulations in CRM[17],[18],[19]. Lastly, regarding the metaverse, of course, this can be used. Gamification and board games can be included in the metaverse to allow us to see the virtual world and find various things here. Again, we will not explain it in detail here, but we can only describe it when we meet. This metaverse will be developed as a solution for developing teaching and learning processes so that we become static and rigid in learning[20],[21],[22].

Structure- University leadership; Faculty Leaders; Head of study program/department; CMO (Chief Metaverse Officer).

The organizational structure within the University, of course, must change completely. It is not to waste money, but we should see future profits, where with the addition of these people, we will be able to change the pattern that has been going on for a long time. The CMO here has a critical function because his duties and responsibilities are to design a strategy for implementing the metaverse, what

things should exist, and what profits are obtained from using this metaverse. The CMO will be fully responsible to the CTO and oversee the implementation of this metaverse. Furthermore, the CTO must also think and make all learning processes apply the metaverse to use the virtual world to convey knowledge if the lecturer is not present[23],[24],[25].

Systems- Industry cooperation; Metaverse technology development.

The system here means that the University must be ready to implement this metaverse, the collaboration is already underway, and the project is running well. The development will continue, and universities can collaborate on curriculum between various departments and faculties to create creativity. The first thing to do is look at all the existing processes and replace or add metaverse processes to the current system if necessary. Still, it is essential to note that human resources must be fully prepared to implement them. In most cases, when a process fails, it is not the finished system, but the humans who run it need more competence, so the systems and processes that have been created need to be revised.

When a system change is made, the most important thing is that there is a control center that can analyze this, and who is responsible for each system must be clear and not blame each other if there is a failure. Still, the unit leader must be fully accountable for this.

Culture- Analysis thinking; Future focus.

In culture, we must be able to change the habits of the existing teaching and learning process. We no longer only have to be present in class, but some subjects can be done in virtual reality; this is one side. However, on the other hand, we must think further that lecturers and students must be able to function as consultants for existing projects so that this can help improve many things in life.

This habit pattern will only be able to occur if there are ready human resources and infrastructure that can be provided very well. Therefore, it must be understood that we must maintain this balance between human resources and infrastructure availability.

Staff- Marketing; Business Analyst.

On the staff side, all staff, namely lecturers, students, and everyone in the University, must have appropriate competence and comply with international standards. Without changing the existing organizational structure, three people were added to be able to apply gamification, board games, and the metaverse. Of course, these three people must have leadership skills, not just technical ones. Why should this be done? Because if we have more than one ability but lack other skills, implementing these three things will be [26],[27].

Style- Increased profits; Flexibility according to industry needs.

Style is an organizational style used to develop strategies and deal with competition. Here, universities must be able to create business and study centers where research becomes business can be realized. Again, it is needed to increase competence; existing infrastructure and systems must be ready to be implemented.

Global Goals- Business Development; Research became a business.

Globally, the biggest challenge is whether the University can survive for hundreds of years. Even if a university is only profit-oriented, human resource development, good infrastructure, and cultural change are still needed. Surviving in the face of global competition will undoubtedly be challenging.

Profit orientation is one of the essences of combining gamification, board games, and the metaverse. However, without changing habits and providing sufficient human resources and infrastructure, it is the same as opening a restaurant without a chef or a restaurant that only focuses on the crowd of visitors but ignores the cooking quality. Here, the future orientation is to balance all of these things. We must open our minds and hearts for the future, no longer working to earn a living but working to contribute. Of course, universities must also provide appropriate rewards for all of this. The most crucial point is balancing these to be applied periodically and building a more systematic, well-structured, and precise internal defense[28],[29],[30].

IV. CONCLUSIONS

The conclusion that can be given after conducting this research is as follows:

1. This development certainly requires the support of solid infrastructure and competent human resources. Therefore, universities need to do a deeper evaluation, especially on the existing human resources, whether they meet the standards for implementing gamification-board game-metaverse
2. Establish a center for special studies and development, not just for research purposes. A CTO (Chief Technology Officer) must have skills in technology and business and experience. Strong connections in the field and a CBO (Chief Board Game Officer) and CMO (Chief Metaverse Officer) are needed.
3. This concept will be developed shortly and will meet the final point, namely the twelve stages of University (The maturity level inside university profiling)

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