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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 the essential pillars is the university. If we do not change and open our minds and eyes to change, we will not be able to face it in the long term. Therefore, this conceptual research was conducted, and one of the most important reasons is the significant change in how we educate. This research develops the concept of seven stages of maturity levels in 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 (ninth stage), board games (tenth stage), and metaverse (eleventh stage). Further research is ongoing. There is still a final stage to complete this concept, which we will create after this research. This research results in the framework and maturity levels of University Profiling 2.0, which will be the basis for implementing gamification, board games, and metaverse in higher education. It can be applied at the most basic and advanced levels of education. Remember: Change can only happen if human resources, habits/culture, and information technology/infrastructure are ready. We must separate these three things in building quality education. The method we use here is Johari windows, and several methods are already in the seven stages because this concept is a continuation of previous research we have developed. The biggest challenge here is using AI (artificial intelligence) in education, which will be answered by the concept explained in this research.

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

Abstrak

Teknologi berkembang dengan pesat, dan kita membutuhkan perubahan signifikan. Salah satu pilar yang penting adalah Universitas. 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. Metode yang kami gunakan di sini adalah Johari windows dan beberapa metode yang sudah terdapat di dalam ketujuh tahap dan tahapan lainnya, karena konsep ini adalah kelanjutan dari penelitian sebelumnya yang telah kami kembangkan. Tantangan terbesar di sini adalah penggunaan AI (Artificial Intelligence) di dalam pendidikan dan hal ini akan terjawab di dalam konsep yang akan dijelaskan dalam penelitian ini.

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. As we know, the primary need to be able to face globalization is the gradual application of technology into the teaching and learning process. Problems such as the minimal use of technology such as gamification, metaverse, board games, and AI in the teaching and learning process at all levels of education are problems that must be resolved immediately so that our education can develop. Gamification can increase student motivation, metaverse and AI can be used as simulations, and board games can increase problem-solving analysis and strategy. These things are essential to improve the competence of lecturers and student resources in universities. We recommend three must-read books before understanding this concept research: Howard Gardner, (2009). Five Minds for the Future, Harvard Business Review Press[1]; Jeffrey Liker, (2020). The Toyota Way, Second Edition: 14 Management Principles from the World's Greatest Manufacturer, McGraw Hill; 2nd edition[2]; Phil 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 confidential 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 Development. 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 levels, 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 to 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 are developing this concept research again to become a new regular university, called the eight stages of University. 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 set 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; (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.

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. 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 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[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; (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[12]. After we discuss the big picture of the four types of lecturers, a formula is produced:

$$E = K.M.C^2$$

Where: E: Energy (Value of company); K: Knowledge; M: Marketing; C: Computer; C1: Computer technology; C2: Communication technology

New Formula

$$H=G.P^2$$

Where: H: Human resource; G: Great lecturer; P: Performance; P1: High level performance; P2: Perform experience & knowledge This formula was developed to become $H=G.P^2$. Then, it is set again to become $S = K.M^2$.

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

Figure 4 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.

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). 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 mentor in business development
d. Just a & b, or b & c
e. All (a,b,c)

III. RESULTS

III.1. Survey & Results

Table 1: Survey

Number of Participants who completed the survey

Questions	A	B	C	D	E
Question 1: Can your degree now provide you with sufficient skills to face the realities of the world of work?	1	1	2	40	57
Question 2: What degree do you have now?	2	12	30	38	16
Question 3: Does the University where you complete your education provide a balance of general and specific knowledge?	2	10	11	39	38
Question 4: Does your university's information technology infrastructure support the implementation of gamification-board games and metaverse?	5	6	28	36	25
Question 5: Have the facilities at the university helped you in developing competence in terms of applying the latest information technology?	1	15	20	14	50
Question 6: Do human resources meet international standards for dealing with developments in information technology, such as gamification, board games, and the metaverse?	14	10	15	31	30
Question 7: What kind of teaching and learning process do you expect in the future?	0	0	1	43	56

III.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.

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.

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.

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.

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; 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; 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; (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; (3) Lecturers direct students about the green world. For example, natural resources must be maintained appropriately for economic improvement; this is one factor; (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; (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

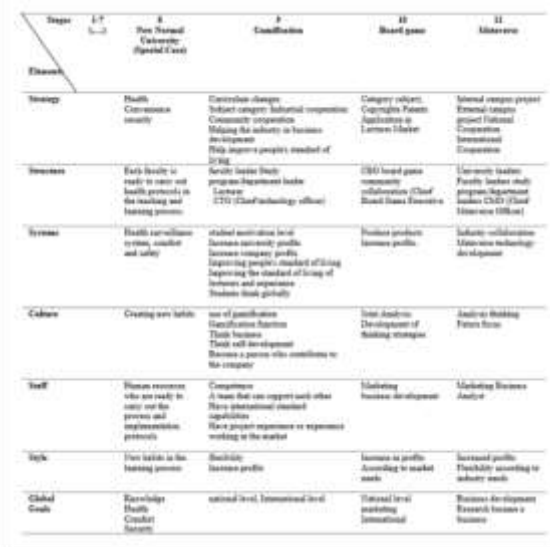
Stage 7-Strategy-University has a global/international impact in terms of innovation. This strategy must be strengthened by complementing the information available in the library and knowledge resources at the University. Educational resources applicable to level 7 strategy, including: Study; high-quality 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. 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[13]

IV. DISCUSSIONS

IV.1. The Eleven Stages of University (The Maturity Level Of University Profiling 2.0)

Proof of this application can be seen on Google Scholar, where there are several journals, and it has been published on Amazon and international books as evidence of research that we have done in stages[14]

Table 2: The Eleven Stages Of University (The Maturity Level)



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. 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. (2) increasing university profits, increasing company profits, improving people's standard of living, improving the standard of living of lecturers and experience. (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.

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[15], [16]

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.

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).

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.

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)[17],[18].

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.

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.

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 community are needed.

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.

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.

Stage 11 The Metaverse & AI

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

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[19],[20],[21]. 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[22],[23],[24].

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[25],[26],[27].

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.

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.

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[28],[29].

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 [30],[31],[32].

V. 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. Gamification can be applied to increase student motivation in learning, and Metaverse and AI can be used for simulation in the teaching and learning process. Board games are used to improve the level of analysis, strategy, and problem-solving

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