

# The Maturity Level of Education Profiling To Generate E-Learning Systems & Innovation

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## Abstract

Knowledge and experience are two things that cannot separate; they are connected and form an inseparable unity. Knowledge has two important things: invisible knowledge based on experience and visible knowledge based on competency development. This article is a complete concept of how we can gradually improve our performance, and at each stage, there will be steps to improve this. Furthermore, this article complements previous research published, namely *Development of Mentoring Management in Producing High-Quality Human Resources at University Level in Facing the Asean Economic Community (MEA) Using the Concept of Kiyosaki - Blanchard Abcd Trust Methods-Hsova*. This article will discuss improving seven indicators: Strategy, Structure; Systems; Culture; Staff; Style, and Global Goals. Of course, these seven indicators are very important to discuss because, at each level, a standard will give to improve performance and systematic steps so that performance can improve stably but flexibly. The other side is the seven levels: stage 1 Uncontrolled; stage 2 The fundamentals; stage 3 The development; stage 4 Integrated; stage 5 Good University; stage 6 The Best University; stage 7 Global University. The results of this article are the maturity level of e-learning and the maturity level of the university.

**Keywords:** The Maturity Level, Education, University, The Seven Stages, E-learning

## 1. Introduction

Human resource development at the university level faces many challenges with developing information technology; this change significantly affects many things in the learning process. Problems such as facilities, services, and these two things can resolve well in each university[1],[2],[3]. However, the availability of highly competent lecturers' resources is still a challenge because of the limited number of lecturers, facilities, and other things that support the improvement. Performance at the university level must address these things because they can affect the performance level and impact the results, namely the human resources it produces. This article complements previous research published and adds what is still lacking in improving performance in universities[4],[5],[6]. E-learning, for example, is an important thing that must build in developing the quality of education and also a well-integrated online system is also very important to improve continuously until the formation of a new culture that is more effective and efficient[7],[8],[9].

This article will discuss seven important indicators: strategy, structure; systems; culture; staff; style, and global goals. These seven indicators are the essence of how to improve. The seven important things in the university and the seven stages are stage 1 Uncontrolled; stage 2 The fundamentals; stage 3 The development; stage 4 Integrated; stage 5 Good University; stage 6 The Best University; stage 7 Global University. These seven stages are the stages that the university has reached. Both are connected in one table and described as follows:



**Table 1.** The maturity level of education profiling inside a university

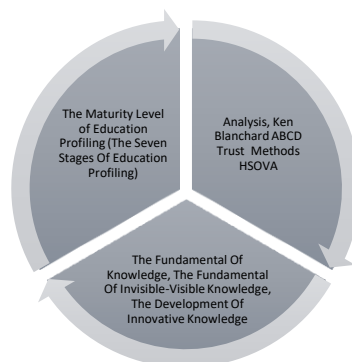
Stage Elements	Uncontrolled	The Fundamental	The Development	Integrated	Good University	The Best University	Global University
Strategy							
Structure							
Systems							
Culture							
Staff							
Style							
Global Goals							

Table 1 describes seven important indicators at the university level, namely (1) strategy, covering the vision, mission and goals of the university in the short, medium and long term in achieving what plan; (2) the structure, organizational structure owned by the university, and its special characteristics; (3) systems, processors, processes and systems built, owned and standard operating procedures that are running; (4) culture, habits and things that have become the pattern of the university in running its organization, both communication and leadership style; (5) staff, human resources such as lecturers, administrative staff and other resources needed, owned and developed; (6) style, style and ways of the university in achieving its goals; (7) global goals, values generated by the university and contributions made to the world.

This article's result is the maturity level of education profiling. Each column will contain standardization in improving the performance of the seven indicators and stages, which are the standards for improving the university's quality and quantity. Furthermore, the maturity level is also a process of improving performance in e-learning so that technology can use optimally in the teaching and learning process.

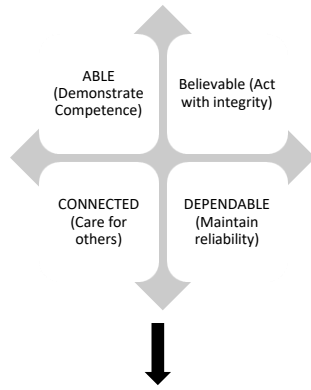
## 2. Research Methodology

Figure 1 describes the research stages starting from problem analysis; then Ken Blanchard ABCD Trust Methods HSOVA was developed into three formulas for developing knowledge.



**Figure 1.** The Process of Research

Therefore, the process of developing the method applied in this article can describe as follows:

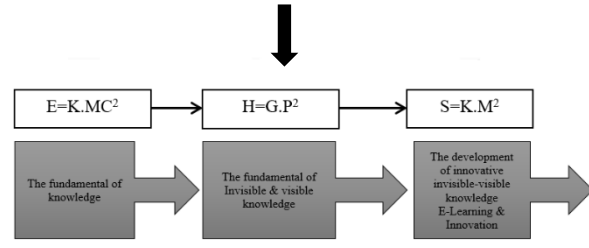


ABLE	HSOVA				
1. Get satisfying results	H	S	O	V	A
2. Resolve problems	H	S	O	V	A
3. I am very skilled	H	S	O	V	A
4. Proficient in his field	H	S	O	V	A
5. Have the appropriate experience	H	S	O	V	A
6. Using the skills to help each other	H	S	O	V	A
7. Give the best in work	H	S	O	V	A

BELIEVABLE	HSOVA				
1. Keeping secrets	H	S	O	V	A
2. Admit mistakes	H	S	O	V	A
3. I am an honest person	H	S	O	V	A
4. Not talking about the person behind	H	S	O	V	A
5. I am a sincere person	H	S	O	V	A
6. I don't judge	H	S	O	V	A
7. I respect other people	H	S	O	V	A

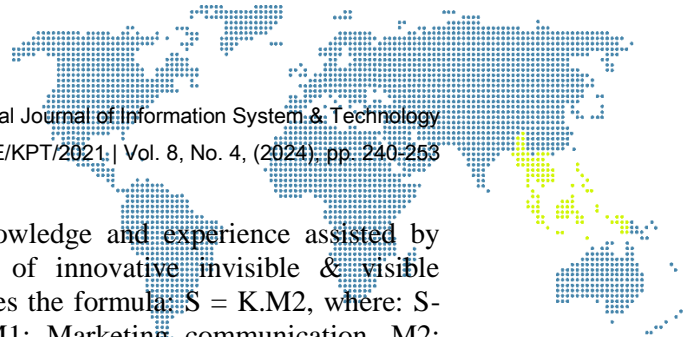
CONNECTED	HSOVA				
1. Be a good listener	H	S	O	V	A
2. Praising other people's efforts	H	S	O	V	A
3. Show interest	H	S	O	V	A
4. Share stories about yourself	H	S	O	V	A
5. Can work as a team	H	S	O	V	A
6. Shows empathy for others	H	S	O	V	A
7. Ask for input	H	S	O	V	A

DEPENDABLE	HSOVA				
1. Do what you say	H	S	O	V	A
2. I am a punctual person	H	S	O	V	A
3. Responsiveness to requests	H	S	O	V	A
4. I am an organized person	H	S	O	V	A
5. Take responsibility for your actions	H	S	O	V	A
6. Follow up	H	S	O	V	A
7. I am a consistent person	H	S	O	V	A



**Figure 2.** The process of invisible-visible knowledge – E-learning & Innovation

Figure 2 explains that the first thing that Ken Blanchard's methods are the first step, then the second step is knowledge, where there is an E-K.MC<sup>2</sup> formula: E-energy or value of organizations; K- knowledge; M-marketing; C<sub>2</sub> (C<sub>1</sub>: computer science, C<sub>2</sub>: computer communication). At this stage, the knowledge must assist by technology in developing the knowledge and knowledge produced to strengthen the organization's brand marketing, in this case, the university. Next is The fundamental of invisible & visible knowledge, which produces the formula H = G.P<sup>2</sup>, where: H-human resource; M: Great lecturer; P (P<sub>1</sub>: performance knowledge, P<sub>2</sub>: performance experience). This stage is the

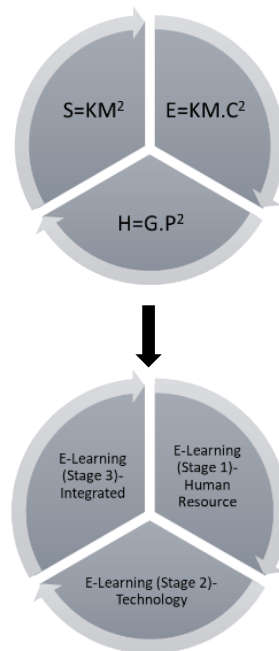


development of human resources that balance knowledge and experience assisted by technology. The final stage is the fundamental of innovative invisible & visible knowledge- e-learning & innovation, which produces the formula:  $S = K.M2$ , where: S- Synchronization; K-Knowledge & balance; M (M1: Marketing communication, M2: Marketing explosion & global). This stage involves synchronizing everything already owned, such as knowledge, human resources, experience and technology[10].

### 3. Results and Discussions

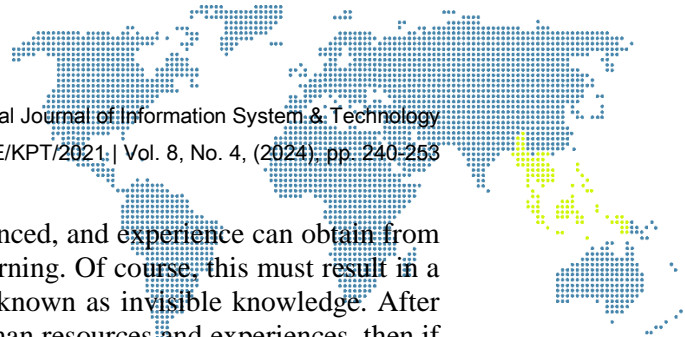
#### 3.1. The Fundamentals of E-learning

It will explain how knowledge must build in stages, and this knowledge must be precisely defined and maintained in a balance between knowledge and experience. For example, it can describe as follows:



**Figure 3.** The Process of Knowledge to The Maturity of E-learning

Figure 3 explains the initial stage is to build strong knowledge. It will provide a strong foundation, especially for formal knowledge (visible knowledge); this knowledge requires us to develop our competencies to the maximum point. If we look at the formula  $E = K.MC2$ , we can see that knowledge is always related to computers, called technology. Therefore, technology plays a very important role in building high knowledge here. Next,  $H = G.P2$ , where the knowledge that builds must have the right human resources. The E and P formulas are not independent; both relate. E is about knowledge, and H is about human resources. E will be processed if it has H; likewise, H will process if it has E. The focus of His increasing performance until at the highest point, where performance is measured through the achievements it has produced, starting from research, other work that has made a positive contribution and how knowledge can deliver appropriately. This stage is about performance and results, but the results have to go through the right process, not the results of tricks that only increase certain points. The most important thing to pay attention to here is human resources when improving their abilities and how this knowledge produces something. Is it already on the right path, not on the path resulting from "other paths" that are not by academic integrity? Finally, the formula  $S = KM2$  is also related to the two previous formulas. If E is about knowledge, H is about human resources. S is a balance between knowledge and experience, where knowledge must implement appropriately, correctly, and correctly.



On the other hand, knowledge must have experienced, and experience can obtain from projects or things that can trigger creativity from learning. Of course, this must result in a contribution to society. Experience, in this case, is known as invisible knowledge. After we build these three things, namely: knowledge, human resources and experiences, then if this applies to e-learning, it will produce the maturity level of e-learning[11],[12],[13],[14].

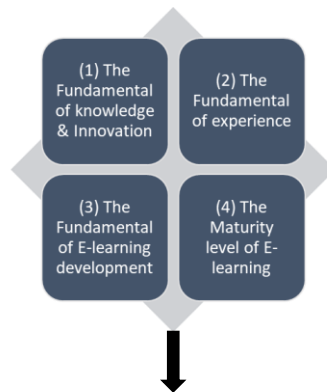
Stage 1, E-learning - human resource. This first stage concerns human resources' readiness to implement e-learning in teaching and learning. Readiness means building habits where the teaching and learning process is no longer just ordinary but uses technology to communicate. The most important thing here is that this habit must be built by first applying 50% e-learning to the teaching and learning process, then gradually observing the process. Then, if it has become a habit, it can fully apply to the teaching and learning process[15],[16],[17].

Stage 2, E-learning- technology. At this stage, some courses can be online, where there is the material that can download online, and learning can use online technology to deliver it. For example, google meet or other online media to explain the course content. The technology here must be user-friendly, and its use must be right on target, where lecturers and students can share easily and not have too many complex features[18],[19],[20].

Stage 3, E-learning Integrated - at this stage, the application of e-learning has been well integrated, especially at the more innovative stages. Where 24-hour access and ease of communication. Innovation also occurs in this e-learning system, where lecturers and students can work together to complete projects. Other students can see the process of online videos so that they can indirectly gain experience[21],[22],[23].

### 3.2. The Maturity Level of University

After discussing how this knowledge can be built consistently and producing the maturity level of e-learning, the next is a complete performance standard on how a university's performance should measure in stages. For example, it can describe as follows:



Stage	Uncontrolled	The Fundamental	The Development	Integrated	Good University	The Best University	Global University
Elements							
<b>Strategy</b>							
<b>Structure</b>							
<b>Systems</b>							
<b>Culture</b>							
<b>Staff</b>							
<b>Style</b>							
<b>Global Goals</b>							

**Figure 4.** The Maturity Level of University ( Education Profiling)

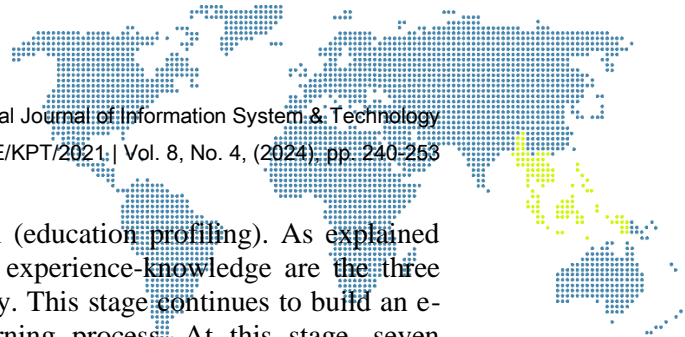


Figure 4 explains the university's maturity level (education profiling). As explained above, building knowledge, human resources, and experience-knowledge are the three main things that must develop properly and correctly. This stage continues to build an e-learning system to support the teaching and learning process. At this stage, seven elements/indicators will explain and seven stages in measuring the university's performance. At each level, there will be a standard. If the university has met these standards, it can increase to the next level. This method is flexible and can be adapted to the university's situation and conditions and then applied slowly. This stage aims to assess university performance in the right and right-on-target process and a more structured and systematic improvement.

**Table 2.** The maturity level of education profiling inside a university

Stages Elements	1 Uncontrolled	2 The fundamental	3 The development	4 Integrated	5 Good University	6 The Best University	7 Global University
Strategy	Hardware and software requirements analysis	Vision Mission Aim Determined and planned	Faculty Brand Positioning Difensiasi Aggressive	Building cooperation Local universities (20%) Universities abroad (20%) Control	Building cooperation of Local University (30%) Universities abroad (30%) Control Develop Cooperation	Solid cooperation with local and overseas universities in R & D Cooperate with companies/organizations/industries at national and international levels	Universities have an impact on innovation
Structure	None	Simple organizational structure	Effective & efficiency organization Department faculty	More department and faculty	Leaders who have level 4 capabilities -Jim Collins concepts	Leaders with level 4 & 5 abilities (According to Jim Collins Concepts)	Interconnected organizational structures
Systems	Unconnected Uncontrolled	Many applications Gaps Overlapping SOP	Building systems and integration	Office integrated systems Administration SOP Digital	Integrated Less complain Digital	Integrated Less complain Digital e-learning ERP, SCM, CRM	Integrated-Global
Culture	None	Building trust	Assertive Focus Delegate to the right person More one-way communication	Increased trust Cooperation The ability to communicate in two directions	Good cooperation and mutual help in improving the ability The position interest cycle decreases.	Solid cooperation between staff Little personal interest in positioning, but focusing on what innovations and contributions can give to society and the world	Open-Minded Excellent communication
Staff	Requires competent staff	Visible knowledge	80% visible knowledge 20% invisible knowledge	Lecturers who have high competence 30% visible knowledge 30% invisible knowledge	40% Visible knowledge 40% Invisible knowledge	80% Visible knowledge 80% Invisible Knowledge	100% Invisible & Visible Knowledge
Style	None	Delegation to the right person	Defender	Working together well Establish support between staff Support each other for knowledge and experience	Good Cooperation	Excellent cooperation	Openness in knowledge and experience Give each other and support
Global Goals	Confuse Still in determining the highest goal of the university	Define the university focus	National impact	Cooperation with local and international universities Building cooperation with national companies/organizations/industries	National impact (50%) International impact (40%)	National Impact International Impact 80% Innovation and create products/services	Contributing to the creation of innovations with global impact

### 3.2.1. Stages 1

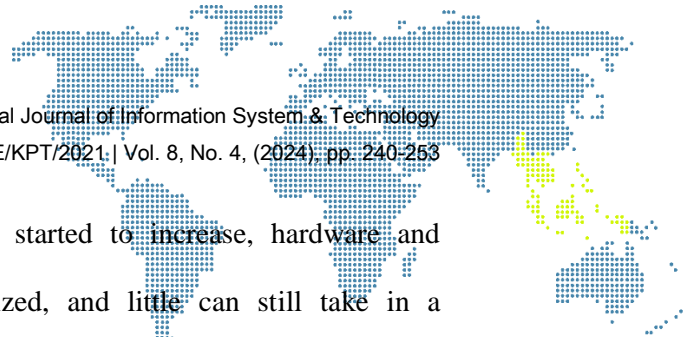
Strategy - the university has determined the vision, mission and objectives. However, it is not yet fully implemented, and the facilities and hardware and software are still not in a position to fully function properly. The position of infrastructure is still lacking and not yet fully operational[24].

- Structure - the university has an organization, but the organizational structure is still incomplete; this is due to the lack of human resources. In stage 1, universities still really need human resources who are absorbed and competent.
- Systems - The university system already has a system, but this system is still simple and has not applied more sophisticated technology; as a result, which is not well integrated. It still takes time to build a structured and systematic system.
- Culture-decision-making is still very centred on the highest leader because it requires tight control in running the process to increase the level first.
- Staff - The number of human resources is still limited, and competent human resources are still needed to support the vision, mission and goals of the university.
- Style-at this stage, each university is unique in carrying out the process, and this uniqueness is the main character known by the public[25].
- Global Goals- universities do not have further global goals because they still need time to develop.

### 3.2.2. Stages 2

Strategy- The university starts to take a step further by designing a vision, mission, and goals for 2-5 years to improve in the face of global change.

- Structure-the university has begun to form a more complex organizational structure, and the number of human resources has increased.

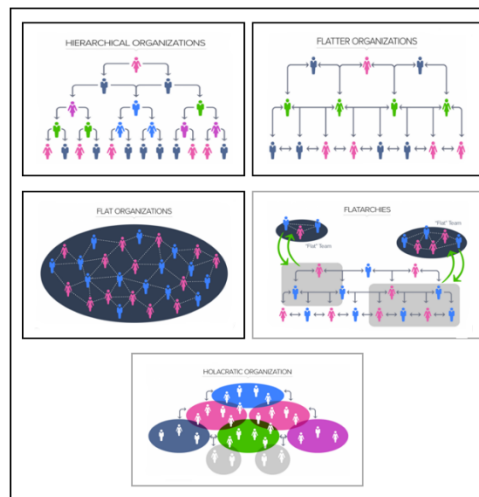


- b) Systems infrastructure and facilities have started to increase, hardware and software use, and some have integrated.
- c) Culture- decisions taken are still centralized, and little can still take in a decentralized manner
- d) Staff - the number of human resources in competence is still lacking and requires further development, especially those with a master's degree.
- e) Style - communication and processes are still centralized, but little is decentralized. The placement of people is still not by their field of competence.
- f) Global Goals-university is still looking for its market position and uniqueness to be better recognized.

**3.2.3. Stages 3**

The strategy-vision, mission and goals of the university have started to develop. At the regional level, the university has started to be recognized and a further process, with a vision, mission, goals and targets for ten years.

- a) Structure- The organizational structure has begun to develop and form a pattern so that management can run well. The organizational structure includes:



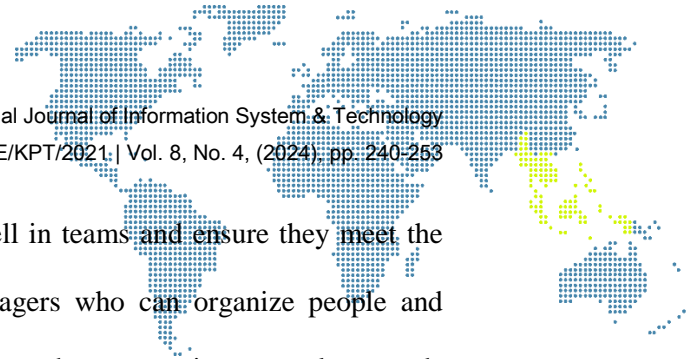
**Figure 5.** Types of Organization-Structure[26],[27],[28]

- b) Systems-universities already have standard operating procedures but are still not fully integrated.
- c) Culture-communication has started to develop in two directions, and there is decentralization.
- d) Staff-minimum human resources have reached level 3. It can describe as follows:



**Figure 6.** Five Levels of Leadership – Jim Collins[29]

Level 1 - This person helps the organization succeed through skills and knowledge.



Level 2 - They then develop to perform well in teams and ensure they meet the desired goals.

Level 3 - They have become skilled managers who can organize people and resources to achieve organizational goals.

Level 4 - They will now be effective leaders who can motivate people towards their vision.

Level 5 - Very few people have a point where they can change an organization from good to great.

- e) Style - the university has a well-known brand. For example, the university is a fairly good school of computer science at the regional level.
- f) Global Goals - universities have started to move towards global goals, which have started to have a strong foundation at the regional level.

### 3.2.4. Stages 4

Strategy - universities begin collaborating with the national and other universities, research, curriculum development, and improving human resource competencies.

- a) Structure - The university has several faculties and departments and a more comprehensive organizational structure. In addition, the level of decentralization has started to improve and is running quite well.
- b) Systems - The universities' systems have started to develop, and the implementation of technology makes business processes at the university easier to run.
- c) Culture-communication and habits have been well developed, and this process enhances the relationship between lecturers and students.
- d) Staff-human resources have reached level 3.5, which has seen a significant increase in incompetence.
- e) Style- universities collaborate with the industry to increase their competence. This style is certainly related to the goals of globalization.
- f) Global goals - the university collaborates in developing a vision, mission and goals with several patterns that emphasize increasing competency, knowledge and experience in the industrial world.

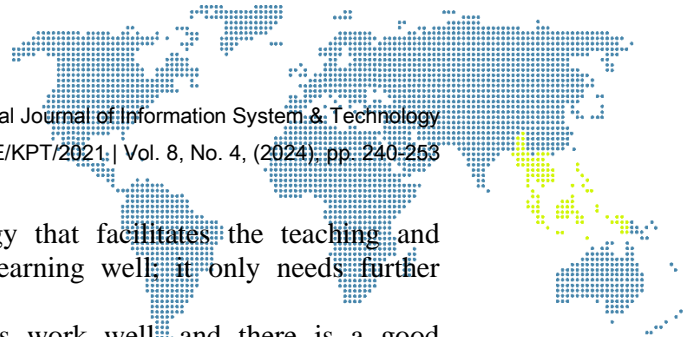
### 3.2.5. Stages 5

Strategy- universities improve vision, mission, and goals by collaborating with internationals in increasing competence and increasing knowledge to the highest position, namely doctor of philosophy (PhD)

- a) Structure- The organizational structure is stable and running well with an objective level of management control. The organization has started to enter level 5. It illustrates as follows:



**Figure 7. Level 4 Leader Vs Level 5[29]**



- b) Systems- Operational have used technology that facilitates the teaching and learning process that has implemented e-learning well; it only needs further development.
- c) Culture-communication and other processes work well, and there is a good environment for the mutual development of knowledge and competence.
- d) Staff-The human resources staff were already at level 4, and some were already at level 5.
- e) Style-the university has a concept of human resource development that is comprehensive and significant and has a considerable impact on the national level.
- f) Global goals-Universities can have a 50% impact on the city where the university find and 40% international, covering one overseas city or several cities.

### 3.2.6. Stages 6

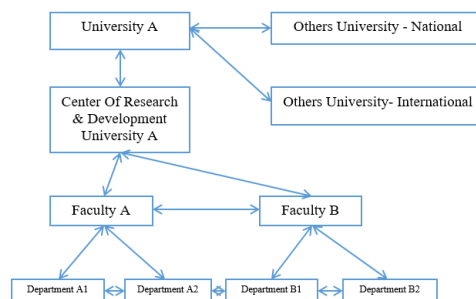
Strategy- The university has an integrated learning community that is useful for increasing competence, consisting of a group of students and lecturers who have research that can contribute to society[30].

- a) Structure- The organizational structure is already running very well; decentralization and centralization are balanced and communicative.
- b) Systems-universities already have sophisticated e-learning systems and can make the quality of online and face-to-face teaching and learning processes balance in quality.
- c) Culture-universities have a culture in terms of contributing to society, and their knowledge must have a positive impact.
- d) Staff-the university has master and PhD degrees. In addition, it supports by several national and international certificates to increase its competence and professional staff who can assist in business processes within the university.
- e) Style-lecturers, students, and the environment have excellent communication, creating effective CRM.
- f) Global goals- the university contributes to society by applying the knowledge and experience gained to increase people's living standards. Furthermore, the university produces human resources that have reached the international level.

### 3.2.7. Stages 7

Strategy- The university's strategy, vision, mission and goals have reached an international level, where all short, medium and long-term plans focus on global goals. The application of e-learning is the main focus in the teaching and learning process and all processes at the university level[31],[32],[33],[34]

- a) Structure-The structure-university has close relationships with other universities in terms of R&D development. Therefore, it can describe as follows:



**Figure 8.** University-Faculty-Department-Connected

According to Figure 7, each faculty down to the sub-unit has a research development centre established to conduct joint research and develop unique things. Innovation is at



the centre, where the experience gained can be a strength to develop the needed things, which will reach the international level. Systems-ERP implemented very well. As an example:

#### **A. The A- University 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 it from university B. This system applies to universities in the same city; lecturers and students have a national library membership card, meaning lecturers/students can borrow from other universities to get information/data. Standard operating procedures and cooperation must carry out legally between universities A and B. Currently, lecturers/students can still physically obtain textbooks/journals/information because they are still in the same city[35],[36],[37].

#### **B. The B-University System at The International Level**

At this stage, the local university works with other universities in other countries, but some restrictions must make. These limitations include: (1) Universities in Country A cooperate with several universities in Country B, where lecturers/students can gain access to libraries; (2) the information obtained is in digital form and can be downloaded using an agreed payment method between universities; (3) standard operating procedures and agreements between universities should make as clear as possible to avoid problems.

Culture- At this stage, the university has successfully built a positive, comfortable and communal culture (environment). However, it means that lecturers and students must create an academic and innovative academic environment. The university environment must be an open environment. Here, it happens - open communication and open innovation:

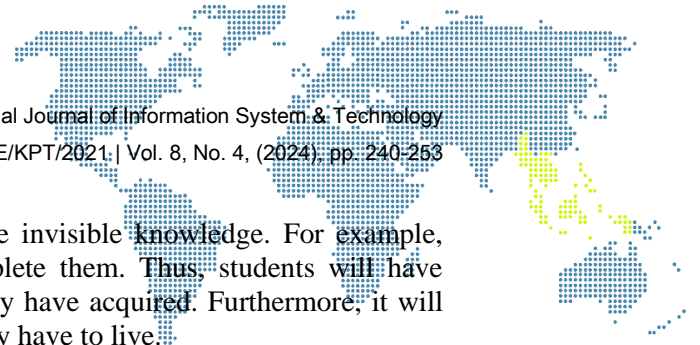
(1) Lecturers have an open mind to other lecturers, namely that lecturers no longer feel great in their field but want to work together and build good relationships with other lecturers who have other abilities. It must understand; that there are no greatest lecturers here; there are lecturers who are unique in themselves and others who have their uniqueness. Exchanging ideas and communications to create new products/services and concepts is the cornerstone of creating a global university environment. Lecturers must respect each other's lecturers, with their uniqueness and abilities because mutual respect and respect will create innovative ideas. The definition of intelligence can have visible knowledge that can implement into invisible knowledge, communicate well when the e-learning process carry out and make decisions[32],[33],[6].

(2) students, at this stage, are also responsible for protecting the university environment. Universities can form special groups in maintaining, and shaping the academic environment. Each lecturer can give the responsibility to guide seven students in terms of invisible and visible knowledge; it will be able to shape character, mindset and character to develop into a level of maturity that is deemed sufficient.

Staff-At level 7, leaders from universities and representatives must have skills level 5 (minimum 4.5), and leaders in faculties and departments must have ability level 4 (or 4.5). It is to maintain leadership qualities and stability in the invisible and visible knowledge. We know that everyone has their strengths and weaknesses; therefore, universities have a big responsibility in placing people in the right position, not on a close relationship, but based on their abilities, it must implement to maintain quality.

In achieving global goals; several things must own by lecturers:

(1) Lecturers have concern for students to increase visible knowledge. For example, concerned about the life goals he wants to achieve in the future, the lecturer helps direct him; guides and provides recommendations on what to read, need to know, gain experience, understand life properly, and gain the knowledge needed for his future career



(2) Lecturers have concern for students to increase invisible knowledge. For example, lecturers and students work on projects and complete them. Thus, students will have hands-on experience in applying the knowledge they have acquired. Furthermore, it will help students prepare for the work and the future they have to live.

(3) The lecturer directs students about green words. For example, one factor is that natural resources must be properly protected for economic improvement. The lecturer gave an example that if environmental damage occurs, what happens next is that it can create bad living conditions. Of course, this section must adjust to the expertise and experience of the subject taught by the lecturer

(4) Lecturers build a good culture, happiness, and togetherness. For example, lecturers can conduct social activities with students to generate empathy and sympathy. As a result, students have high-quality knowledge and high social awareness of those in need and the end, lecturers can do sports activities with students.

(5) The lecturer presents a case study. For example: in the teaching and learning process in a lecture, the lecturer shares and explains one or more case studies which are information, data, and real events that occur in life, so that students invite to think of "solutions" and can develop their creativity in solving problems wisely.

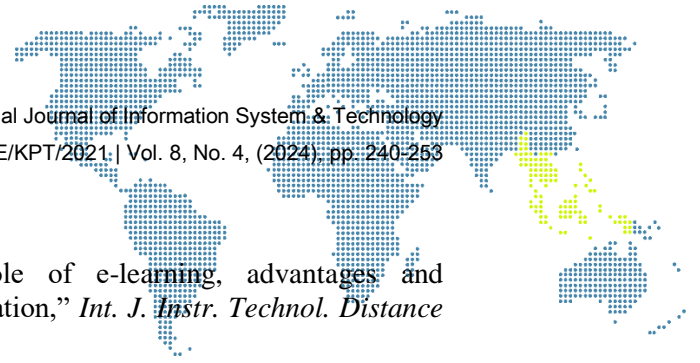
Style- At this stage, the university style is open-minded, open to new ideas, and to ideas that can be applied, both at the university level or in society. Solid and sustainable cooperation with companies/organizations / national/international industries continues to find a better way. This stage is a combination of the concepts of democracy and entrepreneurship.

Global goals- At this stage, the university has several important global goals:

- a) Creating and contributing to society by creating innovative new products/services and concepts.
- b) Apply it to the community.
- c) Creating and shaping an academic culture, where openness and discussion about new things together create innovations that can make people's lives better.
- d) Producing high-quality human resources that have balanced and invisible knowledge.
- e) Good communication in universities and social media.
- f) Creating a global, integrated library system.
- g) Administrative, the operational and high-quality staff is the management level that needs to consider because if the staff does not have good administrative and operational skills, it will harm the university's level of service. Itself and internationally. Therefore, staff admissions must meet level 3 (or 3.5)

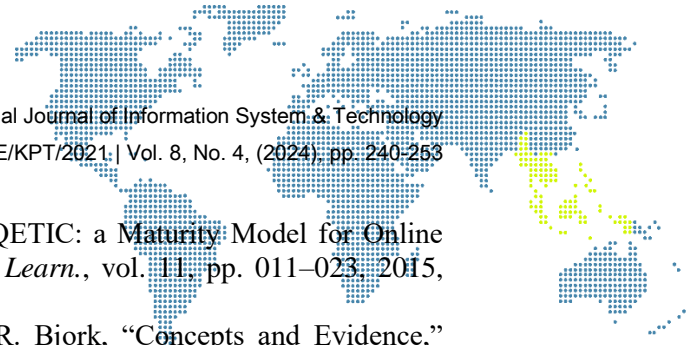
#### 4. Conclusions

Formula  $S = K.M2$  is a formula that specifically develops and combines the power of knowledge (invisible ability) with marketing power; if this develops, the university will have brand power in the market. The university maturity level can measure a university's maturity level in 7 important elements; this will help the university know which elements are still weak and need to develop and which are strong and need to develop at the highest level. This research can be applied in every university, starting from the national level. The most important key is that lecturers who accept jobs must be lecturers with level 4 (minimum) abilities. The university must begin to evolve from visible knowledge to invisible knowledge. In the end, combining visible and visible knowledge will be the main force in producing the human resources needed by companies/ organizations/ industries and society. Acceptance of human resources must be rigorous, and only those with the necessary skills accept as lecturers or staff at the university.

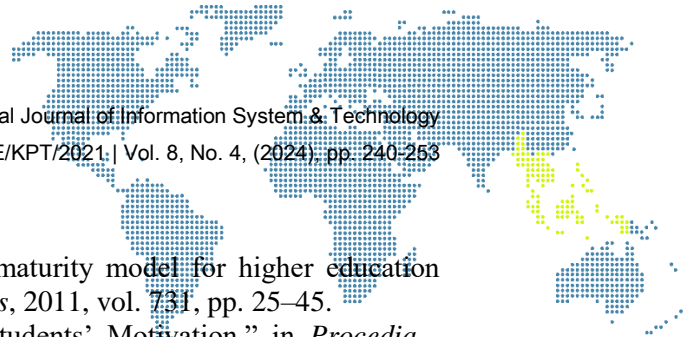


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