The Evolution of Corporate University: Trends and Challenges towards a Super-Smart Society in an Emerging Country

Hary Febriansyah[a*], Ir. John Welly[b], Santi Novani[c], Haifa Labdhagati[d],
[a,b,c,d]School of Business and Management, Institut Teknologi Bandung Jln. Ganesha No. 10, Bandung, Indonesia, 40132, Email: [a*]hary@sbm-itb.ac.id

Corporate Universities (CUs) starts to get more common within big enterprises across the world. The emergence of CUs is driven by the realisation that knowledgeable workers are the most important and significant asset for a corporation. Along with the realisation that knowledge is important, CUs have become the trend among big corporations across the world. Success stories about CUs are widely spread and have triggered the birth of CUs in emerging countries. Investing in this learning initiative is a huge investment that needs sufficient understanding and preparation. CUs as the driver of knowledge in a company also have the potential to produce innovations that are beneficial for society. This conceptual article attempts to discuss the CU phenomenon from its emergence, its potential as a step towards a super-smart society, and also the trends and challenges which surround it.

Keywords: *Corporate Universities, enterprise, emerging country*

Introduction

The term "knowledge era" perfectly describes our current situation. Nowadays, knowledge is the key to global competitiveness, and the ones who possess it are the ones who will survive. Over the last few decades, knowledge has been produced faster than it ever was. The presence of information technology supports the dissemination of knowledge, resulting in faster knowledge production. Companies all over the world have been finding a way to adapt to this rapidly-changing environment. Some of the companies (i.e., General Motors, Walt Disney) started establishing facilities to ensure that the corporate learning process is done effectively—which are more familiar under the term Corporate University (CU).

Corporate Universities (CUs) starts to get more common within big enterprises across the world. The emergence of CUs is driven by the realisation that knowledgeable workers are the most important and significant asset for a corporation (Drucker, 1999). Training and education programs for employees are no longer considered as a cost to the company. Instead, they are regarded as long-term investmenta that would secure the company's position in the market. As time passes, the traditional training and education department inside corporations has evolved, and the term "university" is preferred to create an environment where the employees are seen as learners and where they will engage in a continuous learning process (El-Tannir, 2002).

Although that there has been much debate on the pros and cons of establishing a CU, many big enterprises prefer to educate their employee through CUs rather than sending their employees to a traditional university program (Nixon & Helms, 2002). While for working adults, there are some barriers to continue their education in traditional universities such as inflexible courses and busy schedules, CUs blend learning and working into one activity. CUs provide employees with a learning method that is convenient and does not interfere with their jobs.

CUs are not a merely new terminology to renew the traditional training and education department; there is a strategic dimension that differentiates CUs from the previous model (Abel, 2008; Rademakers, 2005). CUs facilitate the social, technological and organisational practices that support knowledge creation and organisational learning (Prince & Stewart, 2002). The learning process in CUs is aligned to the business needs of the organisation and driven by the organisation's strategy, goals and major initiatives (Andresen & Lichtenberger, 2007; Ben-Hur, Jaworski, & Gray, 2015). Recent research regarding CUs mainly promote CUs as a part of the organisation's human capital long-term development strategy that support learning and the knowledge creation process within the organisation (Hilse & Nicolai, 2004; Walton, 2005). Some CUs are not limited only to supporting the learning process within a corporation; they also attempt to educate the components within the company's value chain. In summary, CUs nowadays are a strategic business unit to increase performance and employee competency through tailored continuous learning and utilisation of technologies, and also in optimising the value chain of the company.

After the Industry 4.0 was introduced in 2011, advancements in information technology such as the Internet of Things (IoT), machine learning and artificial intelligence (AI) have taken over the industry. People have had to adjust to the changes. In 2016, Japan introduced "Society 5.0," which is the government's vision of Japan's future society. Society 5.0 refers to a super-smart human-centred society that integrates cyberspace and physical space to achieve economic advancement as well as solving social problems (Harayama, 2017). The key driver to shift towards Society 5.0 is innovation produced by people. Thus, there is a

fundamental need to develop human resources. It can be argued that nowadays that CUs have an essential role in society because CUs are a learning initiative to increase human resources' competencies.

Although CUs originated from the western part of the world, these learning initiatives have gathered the attention of businesses in developing nations. Over the last decade in Indonesia, big corporations - whether they are owned by the government or private companies - have adopted this model and it has become popular enough for a noted business news pers agency to hold a yearly competition for CUs. Nevertheless, investing in such learning initiatives is costly, and it needs thorough preparation. It is essential to have a profound understanding of what a corporate university is before building one to ensure the practice will generate the desired outcome.

In order to have a deep understanding regarding the CU trend, this paper attempts to discuss the evolution history, CUs role towards a better society and future challenges that lie ahead.

The Emergence of Corporate University

The initiator of CU might seem unclear, as there are many debates on which company started this trend. Corporations started in-house training long ago, even before the term "university" as a metaphor for continuous learning started to become the trend. Other terms such as "academy" or "institute" or "centre of excellence" are often used interchangeably with the term "university" as an improvement over training departments in a corporation (Ewer & Russ-Eft, 2017).

Who started this trend first? Nixon & Helms (2002) suggested that the first CU was the GM Institute, which emerged in the US in 1927. Allen (2002) stated in his book that in 1940, Northrop University was established, and it was one of the earliest CUs. A different idea emerged from Andresen & Lichtenberger (2007), which stated that Disney University, established in 1955, was the first representative of a pure CU. The recent literature from Ewer & Russ-Eft (2017) revealed a somewhat different origin of CU. Their study stated that the concept of CU took root back in the 1910s when the Goodyear Tire and Rubber Company in the US developed an internal workplace training institution in 1913 and labelled it Goodyear's Industrial University. In spite of these differences, it can be concluded that the concept of CU originated in the US as a result of the primarily required skill-based workforce in an information economy that emphasised the importance of knowledge (Allen, 2002; Meister, 1998; Morin & Renaud, 2004; Andresen & Lichtenberger, 2007; Patrucco et al., 2017).

One of the earliest CUs noted by most scholars is the GM Institute (Lytovchenko, 2016; Morin & Renaud, 2004; Nixon & Helms, 2002; Oh & Park, 2011; Ryan et al., 2015; Thompson, 2000). Initially, the GM Institute focused on engineering and management skills. Later in 1982, it became a private and independent college, and in 1997 it changed its name to Kettering University (Morin & Renaud, 2004). Nowadays, the university also provides programs in MBA, production management, engineering and lean production amongst others.

A few decades after the emergence of CU, around the 1950s and 1960s, large corporations in the US built their own CUs, including General Electric, Disney, McDonald's, Arthur D. Little and many others (Lytovchenko, 2016; Morin & Renaud, 2004; Ryan et al., 2015). According to Lytovchenko (2016), a crucial milestone in the development of CUs was the birth of McDonald's Hamburg University in 1963. Hamburg University claims to be the nation's number one training facility, even larger than the US Army in terms of size and scope.

CUs are not only blooming in their country of origin. The concept immediately became a trend in corporate learning worldwide. Previous literature has identified several factors that drive the worldwide emergence of CUs. Globalisation and the rise of the knowledge era have created new economic opportunities of growth and have been identified as the main driver of the trend (Alagaraja & Li, 2015; Lytovchenko, 2016). An organisation's emphasis on productivity and performance has also resulted in better practices in training and development such as CUs quickly adopted. The global war of talent also pushed companies to create a strategic education and keep good managers through the establishment of CUs (Ryan, Prince, & Turner, 2015).

Furthermore, the gap between what traditional universities offer and the requirements of the industry has forced companies to create learning initiatives (Lytovchenko, 2016). This statement is supported by past literature, which found that textbooks used in traditional universities are lacking in some areas of elevated levels of thinking (Upadhyay & Paul, 2019). Other than that, CUs could offer a faster and more effective training with a lower cost compared to traditional universities (Nixon & Helms, 2002).

Some might argue that traditional universities are better in shaping individuals paradigm and training them to see the bigger picture (Nixon & Helms, 2002), however, sometimes the materials delivered in traditional university courses fails to fulfil the needs of corporations. Hence, many scholars suggest that a partnership between CUs and traditional universities are the answer to get the best of both worlds. This form of partnership between traditional universities and CUs will be discussed in the later part of this article.

The Evolution of Corporate University

Learning processes in a workplace have evolved from training departments to vigorous educational entities that expand people and organisations utilising numerous innovative methods (Allen, 2010). Gradually, companies have begun to consider the need to shift their training and development initiatives from a one-time instructional effort to continuous learning processes with a viewpoint of solving real business issues and challenges. Several academics have reported the paradigm shift and evolution in corporate learning (Meister, 1998; Abel, 2008; Barley in Allen, 2007) as summarised in the table below.

Table 1: Paradigm Shift in Corporate Learning

Component	Conventional Training Department	Corporate University
Place	Classroom-based learning	On-demand learning anywhere, enable the use of technology
Content	Upgrade technical skills related to job skills	Build core workplace competencies, aligned to organisational goals
Methodology	Learn by listening, focus on the instructor	Action learning, focus on the employee
Audience	Individual internal employees, limited depth	Intact team of employees, customer, and product supplier
Faculty	External university professor/consultant	International senior manager and a consortium of university professor/consultant
Frequency	One-time single event	Continuous learning process
Goal	Building individual's inventory of skills on the job	Solve real business issues and improve performance on the job, aligned to organisational goals
Focus	Reactive to workplace challenges	Proactive about upcoming changes
Organisation	Fragmented and decentralized	Cohesive and centralised
Scope	Focused on the tactics of training	Deliberate about learning strategy
Delivery	Instructor-led	Experience with various technologies
Outcome	Increase in job skills, support specific business unit	Increase in performance on the job, broader impact across the entire organisation
Image	Go get trained	University as a metaphor for learning
Evaluation	Little to no evaluation practice	A robust system of measurement

		and accountability

Source: adapted from Meister (1998); Abel (2008); Barley in Allen (2007)

Understanding the paradigm shifts mentioned above is as essential as providing facilities that support learning. The first thing to do in establishing a CU is to shift from old paradigms about learning into the new ones. The existence of a CU in a company adds extra work and effort in learning, but it does not guarantee an improvement. Changes are only possible when every component of the company shares the same vision towards learning.

Utilising the symbols and language of higher education, CUs promote an atmosphere of learning and begin to influence organisational learning through the expansion of scope and practice. Although CUs are considered as revolutionary, they do not develop and implement as a fully-grown strategic learning program overnight. CU matures and grow alongside with organisational changes and developing experimental approaches over time.

Previous literature has classified the types and stages of CU evolution. Walton (2005) defined CUs in three generations: (1) first generation of CUs focuses on a relatively narrow area by renaming traditional and development activities requiring classroom attendance and heavily emphasising the promotion and acquisition of corporate values; (2) second generation CUs reflect a broader-based strategy towards organisational learning but still lean to the usual practice; and (3) third-generation CUs possess a virtual element and demonstrate sophistication in the learning philosophy and process for human capital development.

On the other hand, Allen (2002) describes CUs evolutionary growth in a four-ladder sequence, as depicted in the figure below:

Figure 1.1. Four stages of CU evolution (Allen, 2002)
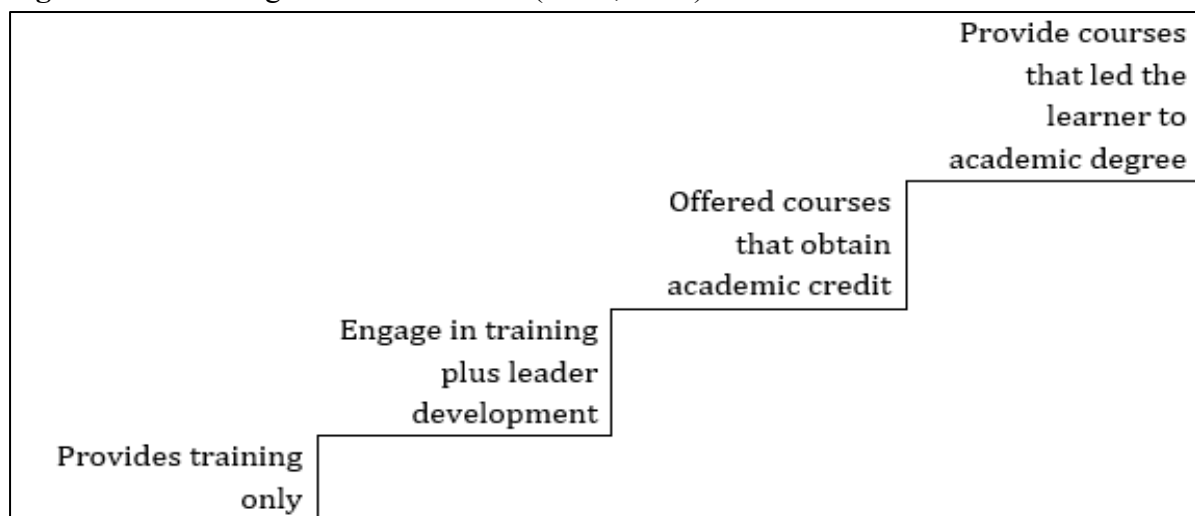
In the description by Allen (2002), CUs started with only providing training, which is similar to the traditional training and development department. Then it evolved until it achieved the highest level of evolution in CUs, which is when the learners can obtain an academic degree through courses offered by the CU. This step of evolution might not be possible in several countries, mainly where educational degrees are strictly regulated (Baporikar, 2014). When educational degrees can only be obtained through courses in traditional universities, the best CUs can do is to provide a similar course that is equivalent to the one offered in a traditional university. This, however, could be perceived as less prestigious than attending a traditional university that can issue a degree for the students.

However, there is always room for improvement. This boundary that CUs have in issuing academic degrees is not the absolute drawback. Although it is not likely, regulations can change. Collaboration between CUs and traditional universities could also break the limitations. The BCA Learning Institute in Indonesia, for example, is currently providing fully-funded non-degree program equivalents to a Bachelor of Accounting and a Bachelor of Informatics degree, partnering with BINUS and Trisakti University. If the students wish to obtain an educational degree, they have an option to continue their study for only six months in the partnering universities. This pattern of partnership can overcome the strict regulations.

Towards the Super-Smart Society

After Germany first introduced the term "Industry 4.0" - which refers to the fourth industrial revolution - at Hannover Fair in 2011, the term has successfully drawn attention from all over the world (Ghobakhloo, 2018; Kazancoglu & Ozkan-Ozen, 2018; Sung, 2018; Zhou, Liu, & Zhou, 2016). Industry 4.0 is substantially described as a digitalised integration of information and communication technologies and manufacturing technology (Glass et al., 2018; Zhou et al., 2016). It contains the cyber-physical systems (CPS), Internet of Things (IoT), and cloud computing (Sung, 2018). The implementation of Industry 4.0 pushes corporations to incorporate technological advancements such as machine learning and artificial intelligence, and requires s human factor which is capable of operating those. The technology advancement has found its way into daily lives. If there is no adequate preparation done by people, those technologies have the potential to replace humans. This would not bring prosperity but rather a catastrophe for human society. How should society adapt to these changes?

The super-smart society concept was introduced as Society 5.0 by the Japanese Prime Minister Shinzo Abe, at the International Exchange Meeting "Future of Asia" back in 2017. In order to understand the concept of a super-smart society or Society 5.0, it is essential to understand how society has evolved (Harayama, 2017). Back in the primordial era, society contained a group of people that hunted and coexisted with nature, referred to Society 1.0.

Then people found a way to produce food through cultivation and built an agrarian society, referred to as Society 2.0. After the industrial revolution, society evolved to Society 3.0, which refers to a society that promoted industrialisation. Along with the invention of the computer, Society 4.0 refers to a society which utilises information networks to add values. Lastly, Society 5.0 is a society built upon Society 4.0, aiming for a human-centred society.

The concept of Society 5.0 is to integrate cyberspace and physical space by leveraging the cutting-edge information technologies with the objectives of achieving economic development as well as solving social problems. This super-smart society is also expected to answer the challenges addressed by the United Nations in their 2030 Sustainable Development Goals (SDGs) agenda (Harayama, 2017). Innovation based on technology which solves problems is the core aspect towards the super-smart society. In Japan, the government initiates education of their citizens as early as in elementary school to familiarise them with technologies with the hope that in the future the kids will grow up utilising the technologies and creating more innovation. However, what to do with emerging countries where information literacy is not as advanced as the developed countries? Is the super-smart society just a notion that would never come true?

Aside from educating society about technology, corporations also need to come up with technology-based innovation, which answers the needs of people in order to strive towards the super-smart society. Knowledge is the key to innovation, and therefore is vital in tackling the challenges. CUs are a learning initiative of a corporation which provide a conducive learning environment in the company. The term "university" implies the objective of having a continuous learning process within the company. Improving information literacy of the employees working in the company is one of a CUs responsibilities. CUs also engage in a knowledge-making process, which is vital to create innovation. With the presence of a CU, the company is expected to become a learning organisation that is aware of technology.

Prior research has found the linkage between learning organisations and innovation (Ismail, 2005; Kontoghiorghes, Awbre, & Feurig, 2005; Liao, Fei, & Liu, 2008). In a learning organisation, employees are encouraged to continuously create, acquire and transfer knowledge within the company. This kind of learning environment, in which knowledge circulates rapidly, reinforces the birth of innovation. By putting an emphasis on technology and accustoming the employee to it, technology-based innovations, which are expected to be the blocks to build a super-smart society, are expected to be produced more frequently. However, this will not be achieved overnight. It is definitely a long process and full commitment from both the corporation and the government to support society is essential to attain the goals.

Trends and Future Challenges

Technology development plays a huge role in setting the trend in the current learning scene in CUs. In the research conducted by Little (2016), only 55 percent of training programs are offered entirely face-to-face and companies are shifting to online platforms. The popular belief of adopting an online learning method is that it will be cheaper than a face-to-face course delivered in class (Nixon & Helms, 2002). However, this is not always true. The cost of setting up facilities that support e-learning can be prohibitive.

Nevertheless, the company is still able to save costs by cutting the travelling cost as the employees can learn practically anywhere and anytime. Other than that, e-learning courses give the employees flexibility and freedom on choosing the learning method they prefer and are able to access a large number of employees (Kimiloglu, Ozturan, & Kutlu, 2017; Nixon & Helms, 2002). Because sometimes the mass learning program is not sufficient, CUs now can even offer a personalised e-learning program based on the personal traits of employees (Anton & Shikov, 2018). This form of flexibility can only be achieved with the assistance of information technology.

Designing an e-learning method for corporate learning needs much consideration. Aside from the set-up cost, another factor that would need consideration is the readiness and acceptance of the company's human factor. These are arguably the most crucial success factor of online corporate learning because eventually, it is the employees that are responsible for learning, delivering innovation and making decisions for company sustainability. Consequently, employees' attitudes toward e-learning have to be taken into account as one of the considerations. Kimiloglu et al. (2017), suggested that personal disadvantages are the major constraint of corporate e-learning. Personal disadvantages include the struggle that employees must deal with in the e-learning practices, such as lack of concentration, motivation, communication and other personal barriers such as the employees' lack of awareness and their overall negative attitude towards e-learning. It turns out that employees have a fear of losing social value because of e-learning implementation. Thus, they want to maintain social interaction in learning. In the usage of e-learning, the instructor also might find difficulties in determining if the employees are comprehending the information (LaBay & Comm, 2003). Blended learning - the combination of e-learning and face-to-face learning - is often preferred to overcome these behavioural problems while still attempting to cut costs through online learning.

Employees' behaviour towards e-learning is not the only behavioural problem which the company needs to assess. Although the corporate learning programs are designed and delivered sophisticatedly to fit the corporations needs, research by Phillips & Phillips (2007) at the ROI Institute showed that 60-90% of skills and knowledge acquired from the corporate learning programs are not implemented on the job and the employees are still doing the same

behaviours. Measuring whether the knowledge is delivered is a rather easy task. The challenges for CUs are how to incorporate a comprehensive evaluation system to measure whether the employee utilises the knowledge in their job. Once the problem is identified, this missing link between learning and action can be solved with wisdom management, as suggested by Allen (2007). Wisdom is what makes a person use knowledge creatively. Allen defines wisdom management as "a planned and systematic process by which an organisation manages how its employees use and apply their knowledge and skills in ways that benefit the organisation."

Learning is essential, however, just relying on learning is not enough to bring development. Experience is needed to add wisdom to the knowledge acquired from learning. However, the problem is, sometimes it takes years to obtain the necessary experience. This part is when wisdom management steps in and accelerate the process. Wisdom management can take many forms, i.e., career path management (Gregg, 2007) or action learning. The key is to understand which experience is necessary for the employee and design a program based on those needs.

It is inevitable that globalisation also comes with changes that need to be considered by CUs. As a company grows, specifically growing into a global cp,[any, the responsibilities of CUs also needs an upgrade in return. For them to become a successful global company, global paradigm shifts are mandatory. Universal competencies - such as business acumen, relationship and change leadership skills that provide the foundation for success throughout the world - must be prioritised (Cohen, 2007). Global CUs must consider the cultural differences of their operation scope. In terms of designing a learning method, no one-size-fits-all solution can be implemented in every part of the world. The learning methods employed must be culturally acceptable and tailored for each different operating area. Other barriers that need to be taken into consideration are time differences, geographical differences, escalating travel costs and the opportunity cost of time.

Nowadays, when millennial generations are taking over the workforce, shifts are happening in the workforce. Job-hopping becomes a common phenomenon. Job-hopping refers to changing jobs willingly. Millennials are willing to change jobs as long as they can improve their skills and take better opportunities in the new place of work (Rivers, 2018). Skilled employees are also found to job-hop between competing firms, especially in the clustered high-tech industry (Fallick, Fleischmann, & Rebitzer, 2006). This phenomenon has become another challenge that CUs must take into consideration. What if the company trainstheir employees and then the employee's hop to a competing firms? What about the knowledge acquired from the company?

Whatever the situation is, providing knowledge to employees is the company's responsibility. Regardless of whether they will job-hop or not, it is the employees' right to obtain the knowledge required to work for the company. Although this needs to be taken into consideration, it does not mean that the company should limit the knowledge they provide. It is better to train the employees even though they leave rather than not to train them and they stay. To restrain the employees from job-hopping and lose their knowledge to rival firms, the company might consider building reputation through patent enforcement (Ganco, Ziedonis, & Agarwal, 2015).

Final Thoughts

In this article, the authors argue that CUs are essential to support the company learning process and help the process toward becoming a better society through producing innovations. It is also essential to understand how CUs work and the current trends and challenges that are surrounding the issue to get a better insight into this learning initiative. Company awareness towards current problems that need to be prioritised helps society to improve and is indispensable. Therefore, they can design how they would deliver learning and what needs to be learned by the employees.

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