

Why Companies Are Not Always Adopting Sustainable Innovation?

1st Sutawijaya, Achmad Hidayat
Program Doctor Management
Mercu Buana University
Jakarta, Indonesia
ahsuta69@gmail.com

2nd Nawangsari, Lenny C
Program Magister Management
Mercu Buana University
Jakarta, Indonesia
lenny.phd@gmail.com

Abstract—Technology adoption is a very complex process. Currently, manufacturing companies have passed the four main phases, referred to as the industrial revolution. The first is called the 1.0 industrial revolution, while the second and third industrial revolutions are known as Industry 2.0 and Industry 3.0. The fourth is called the Industrial Revolution 4.0, and it is a new vector of industrial development, which means that in the future, industrial revolution 4.0 can lead to the gradual modernization of the industrial sector and has the potential to bring about changes in the technological means that exist in the country itself. By using case study approach, this study focused on the object of service hospitality in Jakarta. The discussion is aiming to understand why companies are not always successful in adopting sustainable technology in the field of hospital services in Indonesia from the aspect of managing supplier relations to ensure sustainability from the perspective of state-owned companies. The population and samples were conducted at *Pertamina group hospitals (RSPP)*, in Jakarta, Indonesia. The results in this study suggest that companies need the right strategy, and to continue to experiment as well as invest in their staff, because sustainable innovation (technology) cannot always be adopted by a company, there needs to be a changing mindset, centered on the source that is owned by the company, to empathize with issues and problems.

Keywords-Sustainability; Technology Transfer; Sustainability Innovation, Design Thinking

I. INTRODUCTION

The rapid arrival of the industrial era 4.0 in the world of technology has brought tremendous benefits to the advancement of human civilization including for companies. Activities in the company have not been denied the need for technology meant to bridge its activities. The industrial era 4.0 in technology has put people into gear. The progress of information technology has now truly been recognized and felt to provide a lot of convenience and comfort for mankind. In some Asian countries, such as Malaysia, Korea and Japan, technology plays a dominant role. Along with the increasingly dominant role of the media in any country, we are witnessing the fact that the lifestyle changes that occur do not only apply to adults. Unlike information technology has developed in Indonesia, the minimal use of information technology has left the Indonesian state behind its neighboring countries. The development of information technology in Indonesia is still lagging, way behind the level of Southeast Asia (ASEAN). This is reflected in the Communication Information Technology Development Index, Indonesia, which is only 4.33 (on a scale of 0-10), ranked 111 out of 176 countries.

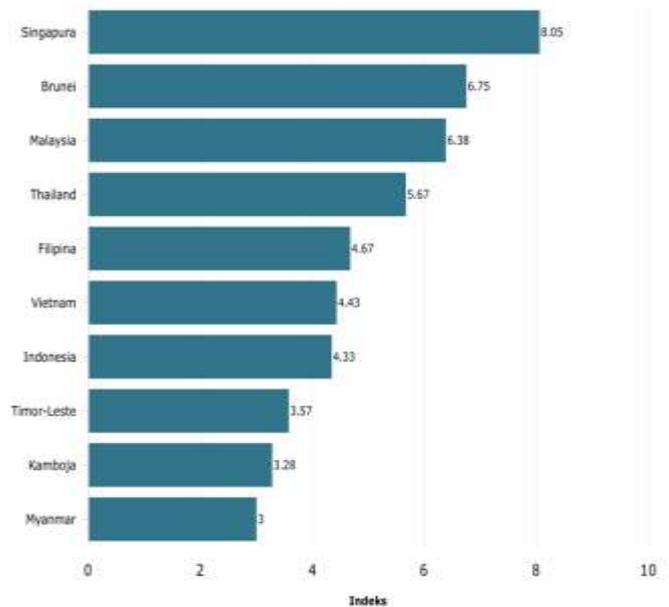


Figure 1. Index Development of Communication Information Technology for 10 Countries in ASEAN

Source: <https://databoks.katadata.co.id/datapublish>

From the picture, it can be seen that the development of information and communication technology has not run optimally. This is evident from the user subindex (4.44) which is lower than the access and infrastructure subindex (5.16). Some indicators that prove the low level of technology in Indonesia are the lack of contribution on the part of science and technology in the industrial sector, weak policy synergy, and the small number of scientists in Indonesia (Armida Alisjahbana, 2015).

The Indonesian nation is one of the nations living in a global environment, so it must inevitably also have to be involved in mastering technology and science, especially for the interests of the nation itself. A strategic information technology plan is paramount for Indonesia. This means that strategic information technology planning is needed to prepare the government for planning the use of information technology as a tool to help run a governmental system more effectively and efficiently.

Pertamina Central Hospital was established in 1967 and inaugurated in 1972. The hospital has carried out several rejuvenation developments, with the principle of patient safety to provide convenience and security to

customers. RSPP, A health service organization owned by the Indonesian government, is required to be sensitive and continue to make adjustments in the service business, including the use of new technology as part of hospital



innovation. As a form of Pertamina's hospital success in maintaining services to the public in 2018-2019, it reached an average index of 96%, as shown in Figure 2.

Figure 2. Customers' satisfaction on hospitalization in 2018

In an effort to improve adequate services, RSPP continues to make continuous improvements by using the latest technological innovations in the form of digital registration to facilitate the registration of services for the community, including through digital means such as print media, Instagram, and Facebook. It is hoped that every innovation created by RSPP will have positive benefits on human life and that applying these technological improvements will be very convenient for people who will use their hospital services.

The benefits of the existence of technology are numerous, both for the manufacturing sector and service sector, such as hospitals. The impact of using technology is certainly not awesome. Technological progress was originally meant to facilitate humans, when setting up a business was easier; a new alienation emerged, namely the fading of a sense of solidarity, togetherness, and friendship. Humans today really have become slaves to technology. *Secur Envoy*, a company specializing in digital passwords, conducted a survey on 1,000 people in the United Kingdom, concluding that students today experience nomophobia, as 66 percent of respondents said they could not live without their cellphones. This percentage is increasingly higher for respondents aged 18 to 24 years. As many as 77 percent of the respondents in this age group experience nomophobia (<http://kampus.okezone.com/read/2012/03/26>).

Besides that, the use of advanced technology in hospitals will have an impact on the costs that must be incurred. The costs are due to hospitals using computer technology for example. All the medical information, including that produced from X-rays, laboratory tests, and heart rate monitors, can be transmitted to other doctors in a digital format. Starting from this phenomenon, the authors want to discuss further the reason why companies do not always adopt sustainable innovation.

II. RESEARCH METHODOLOGY

The study uses a library approach, which is a series of studies relating to library data collection methods, or research whose research objects are explored through various library information (books, encyclopedias, scientific journals, newspapers, magazines, and documents) (Nana Syaodih, 2009). Library research or literature review (literature review, literature research) is a study that reviews or critically reviews the knowledge, ideas, or findings contained in the body of academic-oriented literature, as well as formulates theoretical and methodological contributions on a particular topic (Cooper & Taylor, 2012). The focus of library research is to find various theories, laws, arguments, principles, or ideas that are used to analyze and solve the research questions formulated. The nature of this research is a descriptive analysis, namely the regular breakdown of data that has been obtained, then given an understanding and explanation to be well understood by the reader.

This study uses secondary data. Secondary data is not obtained from direct observation but from the results of research conducted by previous researchers. The secondary data source in question is in the form of books and primary or original scientific reports from Pertamina hospitals and some information contained in articles or journals.

III. LITERATURE REVIEW

Innovation. The word innovation comes from the Latin "innovation" which means renewal or change. The verb "innova" means updating and changing. Innovation can be interpreted as a "process" and or an "outcome" development and the utilization or mobilization of knowledge, skills (including technological skills) and experience to create or improve new products (goods and/or services), processes, and systems that provide meaningful or significant value especially economic and social (<http://library.binus.ac.id>). According to Nijssen, Arbouw, and Commandeur (1995), the speed of innovation is the level of speed or ratio of fast or slow innovation compared to previous projects.

From the notion of innovation, it can be concluded that it is a creative process that carries out new discoveries different from those that already exist.

Innovation Speed. The speed of innovation is one of the most important things for a business. A business can gain a competitive advantage by applying a culture of rapid innovation. Alegre, Lapiedra, & Chiva (2006) state that much research has been done related to the speed of innovation. They found it had a positive effect on the success of a project. This positive influence shows speed is very important in the innovation process.

The speed of innovation has many definitions in different versions. According to Gee(1978), the speed of innovation is the time between conceptualizing the innovation and introducing it to the commercial market. Keller (1986, 1994) defines the speed of innovation as the degree of timeliness of completion of a project with a predetermined schedule. Mansfield (1988) defines the speed

of innovation more broadly, namely the time passed from the start of a new product or process innovation study until the day the product or process is commercially introduced on the market.

According to Purnomo, et. al (2018), informal institutions rely on social background and social values of the community, because informal institutions durable and long-lasting. Second, informal institutions are in the grassroots level so it can solve any conflict among the community members easier and faster. Third, informal institutions require small or no overhead costs to negotiate, adjudicate and enforce.

According to Nijssen, Arbouw, and Commandeur (1995), the speed of innovation is the level of speed or ratio of fast or slow innovation compared to previous projects.

Sustainability innovation. Simply innovating can be described as an attempt to make something new which has meaning. Of course, it has meaning for the consumers. Someone who has an idea but does not try to make it happen cannot be called an innovator, because to innovate must be followed by a strong intention to make it happen (Ali Maksum, 2017). Sustainability innovation reflects the next generation of economic development thinking. Sustainability and sustainability innovation have been defined by different individuals representing diverse disciplines and institutions.

Technology advances. Technology is the whole means to provide goods needed for the continuity and comfort of human life. The use of technology by humans begins with the conversion of natural resources into simple tools (Wikipedia, <https://id.m.wikipedia.org>). In general, technology can be defined as entities, objects or non-objects created in an integrated manner through actions, and thoughts to achieve a value. Thus, technology refers to tools and machines that can be used to solve problems in the real world (Science and Engineering Indicators. National Science Foundation, 2002).

Corporate Sustainability. Corporate Sustainability is a business approach carried out by the company to arise long-term interest in both consumers and employees which creates a green strategy, namely a business strategy that not only prioritizes profit but also how the business can run in a social, cultural and economic environment (Daljono, 2014). According to Hubbard & Graham (2008) in Agustina & Tarigan (2014), corporate sustainability is a development that can meet needs in the present without compromising the ability of future generations to meet their needs. According to Schaltegger, Freund, & Hansen (2012), the Corporate Sustainability strategy is something that is very important for sustainable development and will lead to sustainable company success.

Transfer Technology. Technology transfer, also called technology commercialization, is the process of transferring capabilities, knowledge, technology, manufacturing methods, manufacturing result samples, and facilities, between government, universities, and other institutions to ensure that the development of science and technology can be accessed by many users. This is important for further

development and its use for new products, processes, applications, and service products. Technology transfer is very closely related to knowledge transfer (Grosse, Robert, 1996).

Technology transfers that occur from one region to another can be caused by various factors. This transfer can occur in several ways, including:

1. Employing experts in their fields. This method allows developing countries to easily obtain technology, in the form of techniques and manufacturing processes, especially technologies that are not patented. However, this method is generally only suitable for small and medium scale industries.
2. Organizing the supply of machinery and other equipment, which is carried out through separate contracts with those who master the technology.
3. Establishing a technology licensing agreement with the technology owner to be able to give rights to every person or entity to implement said technology with a license.
4. Providing expert and technology assistance on the part of the technology owner. (Andika, 2018).

IV. RESEARCH DISCUSSION

The hospital, as an institution engaged in medical services, has undergone a change. Along with that, there was competition between hospitals, both state-owned hospitals and private-owned hospitals, all competing to attract consumers to use their services.

Based on the results of the research conducted at Pertamina Hospital, companies do not always adopt sustainable innovation. In the scope of health, patient safety must be the number one target. For this reason, the quality of care for patients is always a top priority in various health facilities, such as hospitals, health clinics and health centers. In this area of health, information technology is often in the spotlight and now given the importance of the role of technology in all aspects of life; hospital technology to improve patient services is increasingly encouraged (<https://www.robicomp.com>). The use of technology in the hospital today is a fundamental element that cannot be separated from the hospital business activities themselves. Some of the benefits include helping doctors and patients monitor and diagnose diseases in patients so that decisions will be more accurate and efficient.

On the other hand, the use of technology does not provide only positive benefits for the hospital. Some problems that often arise in the world of health in the form of technological problems include bad communication, both between superiors and subordinates, fellow employees, and employees with patients. Effective interpersonal communication is a nurse's success in overcoming problems and meeting patient needs. Nurses cannot escape the communication process because in carrying out their roles, they need to collaborate with patients and other health teams. Besides, because of recent technological

advancements, some jobs do not require human labor, so they eliminate human employment.

Thus, innovation is not often linked with technology and also not the only solution for *Pertamina* hospitals in providing services to patients. More PERTAMINA hospital services are considering various services ranging from registration, history taking, doctor's examination, investigation, treatment and other actions, administration of medicines to payment. But in its implementation, the customer will assess the speed of the service based on the speed of the officer performing the procedure for obtaining treatment measures. The existence of technology prepared by the hospital will be problematic if the source within the hospital itself does not know the process and the standard procedure. In addition to medical and paramedic personnel providing services to patients, they are also required to carry out administrative activities of hospital services and medication administration.

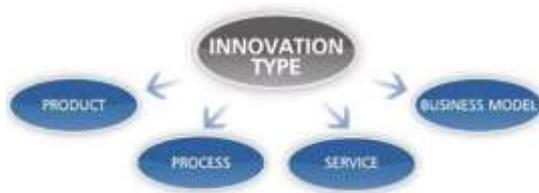


Figure 2. Type Innovation Sustainable

Figure 2 shows that a good concept for the continuity of *Pertamina hospital* business needs to create an innovation strategy for sustainability that combines product innovation, process innovation and business model innovation.

V. CONCLUSION

Innovation is not often connected with new technology. Hospitals have a strategic role in the efforts to accelerate the improvement of public health status. A hospital needs to carefully determine the consumers' needs as an effort to fulfil desires and increase satisfaction with the services provided (John, 1992). Thus, a hospital is one of the competitive health service providers that must be managed by actors who have an entrepreneurial spirit and are able to create efficiency, excellence in quality and service, in innovation and in responding to patients' needs.

ACKNOWLEDGMENT

Thank you to the management of Pertamina Central Hospital (RSPP), Jakarta, who has helped in providing information and input to the author so that this article can be finished.

REFERENCES

- [1] Agustina, R. 2014. Efforts to Improve Reading Ability in Early Childhood through Group Letter Card Media (online).
- [2] Andika Drajat Murdani, 31 Mei 2018, Investasi dan Transfer Teknologi dalam Globalisasi Ekonomi Portal-Ilmu.com; <https://portal-ilmu.com/investasi-dan-transfer-teknologi/>
- [3] Alegre, J., Lapidra, R. and Chiva, R. 2006. A Measurement Scale for Product Innovation Performance. *European Journal of Innovation Management*, 9 (4), pp. 333 - 346. <https://doi.org/10.1108/14601060610707812>
- [4] Ali Maksum, N. M. 2010. Evaluation of Soil Biopori Infiltration Holes in Darmaga Brown Latosol and Jakarta Red Latosol. Essay. Soil Science Study Program Department of Soil Sciences and Land Resources, Faculty of Agriculture, Bogor
- [5] Ali Maksum. 2017. <https://cirill.net/author/radenmasmaksum>
- [6] Alisjahbana, A. 2015, BeritaSatu.com - Berita Terkini, Informasi Kelas Satu, <https://www.beritasatu.com/>
- [7] Buhal. 2000. Visi Iptek memasuki milenium III. Jakarta: UI Press.
- [8] Cooper dan Taylor dalam Mohammad Imam Farisi. 2010. Student Self-Assessment as a Model of Character Assessment and Development. Conference National Scientific, HEPI UNESA 2012.
- [9] Daljono. 2014. Fact Analysis that affects disclosure of company reports with website norms, 3(3), Tahun 2014, Halaman 1-12.
- [10] Grosse, R. 2019. "international Technology Transfer in Services" (PDF). *Journal of International Business Studies*. 1996-27: 782. https://id.m.wikipedia.org/wiki/Transfer_teknologi
- [11] Hubbard & Graham. 2008. Strategic Management: Thinking, Analysis and Action, Edition: Fifth Publisher: Pearson
- [12] John, J. 1992. Patient Satisfaction: The Impact of Past Experience. *Journal of Health Care Marketing*, 12(3), 56-6
- [13] Meinita, H. 2013. Students cannot live without a smartphone. <http://kampus.okezone.com/read/2012>
- [14] Nijssen, A, Commandeur, H.R. 1995. Accelerating new product development: A preliminary empirical test of a hierarchy of implementation, 12(2), March 1995, pp. 99-109
- [15] Purnomo, E. P., Anand, P.B., & Choi, J. W. (2018). The Complexity and Consequences of The Policy Implementation Dealing With Sustainable Ideas. *Journal of Sustainable Forestry*, 37(3), 270-285.
- [16] Rosilawati, Y. (2014). Employee Branding Sebagai Strategi Komunikasi Organisasi Untuk Mengkomunikasikan Citra Merek (Brand-image). *Jurnal Ilmu Komunikasi*, 6(3).
- [17] Nikku, B. R., & Rafique, Z. (2019). Empowering people: Role for political social work in South Asia. *International Social Work*, 62(2), 877-891.
- [18] Rosilawati, Y., Rafique, Z., Nikku, B. R., & Habib, S. (2018). Civil society organizations and participatory local governance in Pakistan: An exploratory study. *Asian Social Work and Policy Review*, 12(3), 158-168.
- [19] Robicomp, The Importance of Hospital Technology to Improve Patient Services, <https://www.robicomp.com/pentingnya-teknologi-rumah-sakit-untuk-meningkatkan-pelayanan-pasien.html>
- [20] Schaltegger, Freund & Hansen. 2012. *International Journal for Innovation and Sustainable Development*, 6(2), 2012
- [21] Science and Engineering Indicators. National Science Foundation. 2002. "Industry, Technology and the Global Marketplace: International Patenting Trends in Two New Technology Areas". Open Access date 2007-05-07. <http://www.nsf.gov/statistics/seind02/c6/c6s5.htm>
- [22] Syaodih, N. 2009. Educational Research Methods. PT. Remaja Rosdakarya : Bandung. h.52
- [23] Tarigan. 2015. Reading As A Language Skill. Bandung: Angkasa
- [24] Technology and communication development index, <https://databoks.katadata.co.id/datapublish/2018/12/18/indeks-teknologi>
- [25] Wikipedia, Teknologi <https://id.m.wikipedia.org/wiki/Teknologi>
- [26] https://saylordotorg.github.io/text_sustainability-innovation-and-entrepreneurship/s06-02-defining-sustainability-innova.html