

# PROCEEDINGS

## The 3rd International Conference on Business and Management of Technology

“Back on Track Post COVID-19 Pandemic: How Agile  
is Your Business?”

Online Conference

July 31<sup>st</sup>, 2021

Department of Business and Management

Institut Teknologi Sepuluh Nopember



2021

# PROCEEDINGS

## The 3rd International Conference on Business and Management of Technology

“Back on Track Post COVID-19 Pandemic: How Agile is Your Business?”

General Chair :

Dr. Ir. Janti Gunawan, M.Eng.Sc., M.Com.IB,  
Institut Teknologi Sepuluh Nopember, Indonesia

General Co-Chair :

Dr. oec. HSG. Syarifa Hanoum, S.T., M.T.,  
Institut Teknologi Sepuluh Nopember, Indonesia

Program Chair :

- Bahalwan Apriyansyah, S.T., MBA., Institut Teknologi Sepuluh Nopember, Indonesia
- Dewie Saktia Ardiantono, S.T., M.T., Institut Teknologi Sepuluh Nopember, Indonesia
- Gita Widi Bhawika, S.ST., M.MT., Institut Teknologi Sepuluh Nopember, Indonesia

Editorial Committee :

- Satria Fadil Persada, S.Kom., MBA., Ph.D, Institut Teknologi Sepuluh Nopember, Indonesia
- Mushonnifun Faiz Sugihartanto, S.T., M.Sc., Institut Teknologi Sepuluh Nopember, Indonesia
- Prahardika Prihananto, S.T., M.T., Institut Teknologi Sepuluh Nopember, Indonesia
- Ninditya Nareswari, S.M., M.Sc., Institut Teknologi Sepuluh Nopember, Indonesia

Editorial Assistant :

- Ayu Refti Nahdiati, Institut Teknologi Sepuluh Nopember, Indonesia
- Kumala Sari, Institut Teknologi Sepuluh Nopember, Indonesia
- Mutiara Annisa, Institut Teknologi Sepuluh Nopember, Indonesia
- Tania Amalia D, Institut Teknologi Sepuluh Nopember, Indonesia

Treasurer :

- Puti Sinansari, S.T., M.M., Institut Teknologi Sepuluh Nopember, Indonesia
- Nabila Silmina Hakim, S.T., MBA. , Institut Teknologi Sepuluh Nopember, Indonesia

External Affair :

- Geodita Woro Bramanti, S.T., M.Eng.Sc. , Institut Teknologi Sepuluh Nopember, Indonesia
- Ni Gusti Made Rai, S.Psi, M.Psi., Psikolog, Institut Teknologi Sepuluh Nopember, Indonesia

External Committee :

- Dena Hendriana, B.Sc., S.M., Sc.D, Swiss German University, Indonesia
- Dr. Ir. Henry Nasution, MT, Swiss German University, Indonesia
- Dr. Ir. Gembong Baskoro, M.Sc, Swiss German University, Indonesia
- St. Ayu Diana Lestari, M.Sc, Swiss German University, Indonesia
- Rina Pebriana, S. E., M.Comm, State Polytechnic of Tanah Laut, Indonesia
- Muhammad Ghalih, S.I.Kom., M.Sc, State Polytechnic of Tanah Laut, Indonesia
- Karolina, M.Pd, State Polytechnic of Tanah Laut, Indonesia
- Prof. Dr. Isfenti Sadalia., S.E., M.E., University of North Sumatra, Indonesia
- Rulianda Purnomo Wibowo.,S.P., M.Ec., PhD, University of North Sumatra, Indonesia

International Committee :

- Dr. Mehdi Toloo, Technical University of Ostrava, Czech Republic
- Dr. Sadar Islam, Victoria University, Australia
- Dr. Biswajit Sarkar, Yonsei University, South Korea
- Dr. Andre A. Pekerti, University of Queensland, Australia
- Dr. Shu-Chiang Lin, Texas Health and Science University, Austin, USA
- Dr. Yogi Tri Prasetyo, Mapua University, Manila, Phillipines
- Dr. Aise Kim, University of south Australia, Australia

Steering Committee :

- Ni Gusti Made Rai, S.Psi, M.Psi., Psikolog, Institut Teknologi Sepuluh Nopember, Indonesia
- Bahalwan Apriyansyah, S.T., MBA., Institut Teknologi Sepuluh Nopember, Indonesia
- Dewie Saktia Ardiantono, S.T., M.T., Institut Teknologi Sepuluh Nopember, Indonesia
- Gita Widi Bhawika, S.ST., M.MT., Institut Teknologi Sepuluh Nopember, Indonesia
- Satria Fadil Persada, S.Kom., MBA., Ph.D, Institut Teknologi Sepuluh Nopember, Indonesia
- Mushonnifun Faiz Sugihartanto, S.T., M.Sc.,Institut Teknologi Sepuluh Nopember, Indonesia
- Prahardika Prihananto, S.T., M.T. , Institut Teknologi Sepuluh Nopember, Indonesia
- Ninditya Nareswari, S.M., M.Sc. , Institut Teknologi Sepuluh Nopember, Indonesia
- Geodita Woro Bramanti, S.T., M.Eng.Sc. , Institut Teknologi Sepuluh Nopember, Indonesia

Reviewers :

- Dr. Ir. Janti Gunawan, M.Eng.Sc., M.Com.IB, Institut Teknologi Sepuluh Nopember, Indonesia
- Dr. oec. HSG. Syarifa Hanoum, S.T., M.T., Institut Teknologi Sepuluh Nopember, Indonesia
- Imam Baihaqi, ST., M.Sc., Ph.D, Institut Teknologi Sepuluh Nopember, Indonesia
- Nugroho Priyo Negoro, S.T., S.E., M.T. Institut Teknologi Sepuluh Nopember, Indonesia
- Dr. Ir. Arman Hakim Nasution, M.Eng. Institut Teknologi Sepuluh Nopember, Indonesia
- Dr. Ir. Bustanul Arifin Noer, M.Sc. Institut Teknologi Sepuluh Nopember, Indonesia
- Dr. Ir. Tatang Akhmad Taufik M.Sc. Institut Teknologi Sepuluh Nopember, Indonesia
- Muhammad Saiful Hakim, S.E., M.M. Institut Teknologi Sepuluh Nopember, Indonesia
- Berto Mulia Wibawa, S.Pi., M.M. Institut Teknologi Sepuluh Nopember, Indonesia
- Aang Kunaifi, S.E., M.SA. Ak. Institut Teknologi Sepuluh Nopember, Indonesia
- Ni Gusti Made Rai, S.Psi, M.Psi., Psikolog, Institut Teknologi Sepuluh Nopember, Indonesia
- Bahalwan Apriyansyah, S.T., MBA., Institut Teknologi Sepuluh Nopember, Indonesia
- Dewie Saktia Ardiantono, S.T., M.T., Institut Teknologi Sepuluh Nopember, Indonesia
- Gita Widi Bhawika, S.ST., M.MT., Institut Teknologi Sepuluh Nopember, Indonesia
- Satria Fadil Persada, S.Kom., MBA., Ph.D, Institut Teknologi Sepuluh Nopember, Indonesia
- Mushonnifun Faiz Sugihartanto, S.T., M.Sc., Institut Teknologi Sepuluh Nopember, Indonesia
- Prahardika Prihananto, S.T., M.T. , Institut Teknologi Sepuluh Nopember, Indonesia
- Ninditya Nareswari, S.M., M.Sc. , Institut Teknologi Sepuluh Nopember, Indonesia
- Geodita Woro Bramanti, S.T., M.Eng.Sc. , Institut Teknologi Sepuluh Nopember, Indonesia
- Lissa Rosdiana Noer S.T., M.MT. Institut Teknologi Sepuluh Nopember, Indonesia
- Gogor Arif Handiwibowo ST., M.MT, Institut Teknologi Sepuluh Nopember, Indonesia

Publisher :

Department of Business and Management in collaboration with ITS Press

© 2021, ITS Press, Surabaya

Diterbitkan pertama kali oleh  
ITS Press, Surabaya 2021

Cetakan Pertama September 2021

ISBN 978-623-318-029-0



Hak Cipta dilindungi undang-undang, dilarang keras menerjemahkan, memfotokopi, atau memperbanyak sebagian atau seluruh isi prosiding ini tanpa izin tertulis dari penerbit.

Barang siapa dengan sengaja dan tanpa hak melakukan perbuatan yang melanggar  
HAK CIPTA atas buku ini, maka akan dikenakan sanksi sesuai dengan  
Undang-Undang No. 28 Tahun 2014 tentang Hak Cipta.



## **MESSAGE FROM THE CONFERENCE CHAIR**

On behalf of the conference committee, we would like to welcome all delegates to the 3rd International Conference on Business and Management of Technology (IConBMT) 2021. This conference is organized by the Department of Business and Management Institut Teknologi Sepuluh Nopember (ITS) Surabaya, and in partnership with Politeknik Negeri Tanah Laut. The conference is also supported by Swiss German University.

The theme of this year's conference is "Back on Track Post COVID-19 Pandemic: How Agile is Your Business?". Since March 2020, we face unprecedented events due to pandemic COVID19. It is not easy for business, both on the supply and demand sides. However, we believe that through intellectual gathering, such as today, we may find ways to recover, and provide a meaningful path to back on track. Innovation in various aspects is essential to overcome this challenge. This conference will bring together ideas, knowledge, problems, research findings, and expert experiences on post covid-19 pandemic. We are so pleased to see many respected colleagues and reputable practitioners in this conference event. The total of 91 papers were registered, representing a wide range of topics from various fields in the Business and Management of Technology. Thank you very much for your participation. We wish to make a meaningful impact on a better aspect of business and management of technology through our discussion today.

We have recorded that five Countries participate in the submission papers such as Indonesia, Australia, Malaysia, Phillipines, and USA. We are also delighted to have three respected keynote speakers. Mr. Tantowi Yahya from Indonesian Ambassador to New Zealand, Samoa, and Tonga. Assoc. Prof. Dr. Yingyot Chiaravutthi from Mahidol University International College, Thailand, and Prof. James Stanworth from National Cheng Kung University, Taiwan. The respected keynotes are well known in practical and great scientists at their area. Finally, this conference runs smoothly because of the contribution of all parties. We sincerely thank the participants, reviewers, keynote speakers, committees, and audiences of this conference who have made this conference possible.

Wishing you all a productive and enjoyable conference.

IConBMT 2021 Conference Chair,  
Dr. Ir. Janti Gunawan, M.Eng.Sc., M.Com.IB

## **Synopsis**

The 3rd International Conference on Business and Management Technology (IConBMT 2021) was held with the theme of Innovation in Tough Time. The theme of this year conference is **“Back on Track Post COVID-19 Pandemic: How Agile is Your Business?”**. The massive disruption from the COVID-19 pandemic has accelerated the rise of digital business. Innovation and resilience are needed to achieve a thriving business. This conference will bring together ideas, knowledge, problems, research findings, and expert experiences surrounding innovation in this tough time.

## **Authors**

Amdi Ariefianto, Avanti Fontana, Gembong Baskoro, Akhmad Bajora Nasution, Rr Ratih Dyah Kusumastuti, Dami, Adiyath Randy Yudi Mamase, Mochamad Hamdan Aziz, Dena Hendriana, Farhah Izzah Dinillah. Janti Gunawan, Bahalwan Apriyansyah, Tri Weda Raharjo, Herrukmi Septa Rinawati, Kristian Buditiawan, Hasanuddin, Aditya Tirta Pratama, Fatwa Dewi Widyani, Athor Subroto, Mahdi Diego, Ferhat Husein, Irwan Adi Ekaputra, Putri Wardatul Asriyah, Nurmala, Annisa Ridha Fasya, Bella Puspita Rininda. Radna Nuralina, Billy Sabella, Wiwik Kusri, Eka Wahyu Sholeha, Chusnul Khotimah, Pramesty Widya Zulkarnain, Sutansyah Maulana, Anindya Safa Estralita, Ni Gusti Made Rai, Syarifah Hanoum, Nabila Silmina Hakim, Hayyu Salma Mu'azaroh, Puti Sinansari, Bustanul Arifin Noor, Ninditya Nareswari, Melani Febrianti, R.R. Aisy, Erica Meilina, Maziya Atika, Sara Veronica, Satria Fadil Persada, Anggit Akbar Yudisaputra, Nisa Adzhani Lutfiputri, Elok Savitri Pusparini, Nasha Azarine Putri.





<b>Paper Authors</b>	
Amdi Ariefianto	<i>Department of Economic and Business, Universtias Indoneisa, Indonesia</i>
Avanti Fontana	<i>Department of Economic and Business, Universtias Indoneisa, Indonesia</i>
Gembong Baskoro	Master of Mechanical Engineering Department, Swiss German University, Indonesia
Akhmad Bajora Nasution	University of Indonesia, Indonesia
Rr Ratih Dyah Kusumastuti	University of Indonesia, Indonesia
Dami	Fakultas Ekonomi, Universitas Panca Bhakti
Adiyath Randy Yudi Mamase	Fakultas Ekonomi, Universitas Panca Bhakti
Mochamad Hamdan Aziz	PT United Tractors Tbk
Dena Hendriana	Department of Mechanical Engineering, Swiss German University
Farhah Izzah Dinillah	Department of Business Management Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
Janti Gunawan	Department of Business Management Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
Bahalwan Apriyansyah	Department of Business Management Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
Tri Weda Raharjo	East Java Research and Development Agency, Surabaya, Indonesia
Herrukmi Septa Rinawati	East Java Research and Development Agency, Surabaya, Indonesia
Kristian Buditiawan	East Java Research and Development Agency, Surabaya, Indonesia
Hasanuddin	Department of Mechanical Engineering, Swiss Germany University
Aditya Tirta Pratama	Department of Industrial Engineering, Swiss German University
Fatwa Dewi Widayani	Universitas Indonesia, Faculty of Business and Economics Central Jakarta 10430, Indonesia
Athor Subroto	Universitas Indonesia, Faculty of Business and Economics Central Jakarta 10430, Indonesia
Mahdi Diego	<i>Universitas Indonesia</i>
Ferhat Husein	<i>Department of Management, Faculty of Economic and Business University of Indonesia Jakarta</i>
Irwan Adi Ekaputra	<i>Department of Management, Faculty of Economic and Business University of Indonesia Jakarta</i>
Putri Wardatul Asriyah	University of Indonesia
Nurmala	University of Indonesia
Annisa Ridha Fasya	Politeknik Negeri Tanah Laut, Indonesia
Bella Puspita Rininda	Politeknik Negeri Tanah Laut, Indonesia
Radna Nurmalina	Politeknik Negeri Tanah Laut, Indonesia
Billy Sabella	Politeknik Negeri Tanah Laut, Indonesia
Wiwik Kusrini	Politeknik Negeri Tanah Laut, Indonesia
Eka Wahyu Sholeha	Politeknik Negeri Tanah Laut, Indonesia
Chusnul Khotimah	Faculty of Creative Design and Digital Bussines,Business Management, Institute Technology of Sepuluh Nopember
Pramesty Widya Zulkarnain	Faculty of Creative Design and Digital Bussines,Business Management, Institute Technology of Sepuluh Nopember
Sutansyah Maulana	Faculty of Creative Design and Digital Bussines,Business Management, Institute Technology of Sepuluh Nopember

Anindya Safa Estralita	Faculty of Creative Design and Digital Bussines,Business Management, Institute Technology of Sepuluh Nopember
Ni Gusti Made Rai	Faculty of Creative Design and Digital Bussines,Business Management, Institute Technology of Sepuluh Nopember
Syarifa Hanoum	Faculty of Creative Design and Digital Bussines,Business Management, Institute Technology of Sepuluh Nopember
Nabila Silmina Hakim	Department of Business Management Institut Teknologi Sepuluh Nopember (ITS) Surabaya, Indonesia
Hayyu Salma Mu'azaroh	Department of Business Management Institut Teknologi Sepuluh Nopember (ITS) Surabaya, Indonesia
Puti Sinansari	Department of Business Management Institut Teknologi Sepuluh Nopember (ITS) Surabaya, Indonesia
Bustanul Arifin Noor	Department of Business Management Institut Teknologi Sepuluh Nopember (ITS) Surabaya, Indonesia
Ninditya Nareswari	Faculty of Creative Design and Digital Bussines,Business Management, Institute Technology of Sepuluh Nopember
Melani Febrianti	Faculty of Creative Design and Digital Bussines,Business Management, Institute Technology of Sepuluh Nopember
R.R. Aisy	Faculty of Creative Design and Digital Bussines,Business Management, Institute Technology of Sepuluh Nopember
Erica Meilina	Faculty of Creative Design and Digital Bussines,Business Management, Institute Technology of Sepuluh Nopember
Maziya Atika	Faculty of Creative Design and Digital Bussines,Business Management, Institute Technology of Sepuluh Nopember
Sara Veronica	Department of Technology Management Institut Teknologi Sepuluh Nopember Surabaya, Indonesia
Satria Fadil Persada	Department of Business and Management Institut Teknologi Sepuluh Nopember Surabaya, Indonesia
Anggit Akbar Yudisaputra	Department of Business and Management Institut Teknologi Sepuluh Nopember Surabaya, Indonesia
Nisa Adzhani Lutfiputri	Magister Manajemen, Universitas Indonesia
Elok Savitri Pusparini	Magister Manajemen, Universitas Indonesia
Nasha Azarine Putri	Magister Manajemen, Universitas Indonesia

## Table of Contents

Business Model Development a Study Case of SOP and Digital Marketing on MSMEs   Amdi Ariefianto, Avanti Fontana	8
Tertiary (higher) education in Indonesia under pressure: innovation towards the next normal as a consequence of pandemic Covid 19.   Gembong Baskoro	16
Analysis of Asphalt Refinery Development Case Study: Production Capacity Planning and Location Determining  Akhmad Bajora Nasution, Rr Ratih Dyah Kusumastuti	21
The Role of Mendawai Community Language and Local Wisdom in the Management of the Pontianak Caping Tourism Village   Dami,Adiyath Randy Yudi Mamase	28
Strive Reliable Heavy Equipment Main Component Lifetime with Oil Monitoring System in Condition Based Maintenance Implementation through IoT   Mochamad Hamdan Aziz, Dena Hendriana, Gembong Baskoro	35
Exploring the Role of Virtual Try On use Mobile Augmented Reality (MAR) in Indonesia Consumer's Online Buying Behaviour during Covid-19 Pandemic  Farhah Izzah Dinillah, Janti Gunawan, Bahalwan Apriyansyah	41
Reducing Scrap of Cement A3CM-05 By Using PDCA (Plan Do Check Action) And QCC (Quality Control Circle) Method In An Indonesia Leading Tire  Hasanuddin. Gembong Baskoro. Aditya Tirta Pratama	48
Comparison of Artificial Neural Network and Seasonal ARIMA to Forecast Intermittent Demand in Telecommunication Company  Fatwa Dewi Widyani, Athor Subroto	56
De Minimis Impact Towards Lead Time for Global Logistic Industry  Mahdi Diego, Athor Subroto	61
Comparison of ETF's Returns; SRI-ESG Index and Non-SRI-ESG Index in Indonesia Market  Ferhat Husein, Irwan Adi Ekaputra	65
Cause of Delay Analysis in Procuring Goods at Geothermal Powerplant Companies  Putri Wardatul Asriyah, Nurmala	69
PERFORMANCE EVALUATION OF PT. KAPUAS PRIMA COAL, Tbk. 2017-2019 PERIOD USING LIQUIDITY RATIO AND ACTIVITY RATIO ANALYSIS  Annisa Ridha Fasya, Bella Puspita Rininda,Radna Nurmalina	76
SENTIMENT ANALYSIS ABOUT THE COVID-19 VACCINE USING THE NAÏVE BAYES CLASSIFIER METHOD  Billy Sabella, Wiwik Kusrini, Eka Wahyu Sholeha	86
Strategy Analysis of Using Instagram as a Communication Media for Digital Marketing of SMEs Subyung  Chusnul Khotimah, Pramesty Widya Zulkarnain, Sutansyah Maulana, Anindya Safa Estralita, Ni Gusti Made Rai, Syarifa Hanoum	92
Investigating the Role of Communication, Employee Engagement, and Organizational Commitment in the Organization during the Covid-19 Pandemic in Indonesia  Nabila Silmina Hakim, Syarifa Hanoum,Hayyu Salma Mu'azaroh, Ni Gusti Made Rai, Puti Sinansari, Bustanul Arifin Noor	100

Analyzing Factors Influencing Continuance Intention of E-Wallet Adoption Using Modified UTAUT 2 Model   Ni Gusti Made Rai, Syarifha Hanoum, Ninditya Nareswari, Melani Febrianti, Meilina Erica, Atika Maziya	104
Analysis The Effect Of Viral Marketing On Brand Image And Purchase Intention Of Furniture Products During The Covid-19 Pandemic  Sara Veronica, Satria Fadil Persada	111
ANALYSIS OF BUSINESS DEVELOPMENT & MARKETING STRATEGY CASE STUDY MULTINATIONAL TRADING COMPANY (PT. XYZ)  Anggit Akbar Yudisaputra, Satria Fadil Persada <sup>2</sup>	115
The Effect of Self-efficacy and Work Motivation on Indonesian Freelancer’s Work Performance  Nisa Adzhani Lutfiputri, Elok Savitri Pusparini	124
The Effect of Work-Life Balance towards Intention to Stay, Organizational Commitment, and Organizational Citizenship Behavior at Millennial Generation in Indonesia  Nasha Azarine Putri, Elok Savitri Pusparini	133
THE RELATIONSHIP BETWEEN PERCEIVED RISK OF COVID-19 PANDEMIC TOWARD THE INTENTION TO TRAVEL OF INDONESIA DOMESTIC TOURISTS  Vilar K. Adhi, Janti Gunawan, Nabila S. Hakim	142
THE EFFECT OF PERCEIVED VALUE AND TEAM IDENTIFICATION ON SPECTATORS’ PURCHASE INTENTION OF PERSEBAYA LICENSED MERCHANDISE   M Fahmi Nugroho, Janti Gunawan, Mushonnifun Faiz Sugihartanto	143
THE EFFECT OF CSR FEMVERTISING ABOUT WOMAN EMPOWERMENT TOWARDS PURCHASE INTENTION: A CASE STUDY OF THE BODY SHOP IN INDONESIA  Ghaisani Nadhila Mahmudi, Janti Gunawan, Bahalwan Apriyansyah	144
ANALYSING YOUTUBE MID-ROLLS ADVERTISING FACTORS ON WATCHERS’ PURCHASE INTENTION OF ONLINE TRAVEL AGENT DURING COVID-19 PANDEMY  Dani Bergas, Janti Gunawan, Bahalwan Apriyansyah	145
THE ONLINE SECOND-HAND SHOPPING MOTIVATION (OSSM) TOWARDS PURCHASE INTENTION OF FASHION PRODUCTS IN THE COVID-19 PANDEMIC PERIOD	146
Naurah L. Fithriyah, Janti Gunawan, Nabila S. Hakim	
ADOPTING DESIGN THINKING APPROACH FOR ECOTOURISM PRODUCT DEVELOPMENT AND SEGMENTATION (CASE STUDY : JATILUHUR VALLEY & RESORT)	147
Syarifatul Aisah, Janti Gunawan, Nabila Silmina Hakim	
THE INFLUENCE OF MEMORABLE TOURISM EXPERIENCE (MTE) ON REVISIT INTENTION OF LOMBOK TOURISM DESTINATION DURING COVID-19 PANDEMIC	148
M Ihsanudin Firdaus <sup>1,*</sup> Janti Gunawan <sup>2</sup> , Nabila Hakim <sup>3</sup>	
Sustainable Forest Tourism at Sekawan Sejati, West Lombok - Indonesia: Potentials and Challenges	149
Janti Gunawan, Agnes Tuti Rumiati, Aise Kim	

# ***Tertiary (higher) education in Indonesia under pressure: innovation towards the next normal as a consequence of pandemic Covid 19.***

Gembong Baskoro <sup>1,\*</sup>

<sup>1</sup> *Master of Mechanical Engineering Department,  
Swiss German University, Indonesia*

<sup>\*</sup> *Email: [gembong\\_baskoro@yahoo.com](mailto:gembong_baskoro@yahoo.com)*

## **ABSTRACT**

Pressures of corona virus pandemic along with region geopolitics, rapid technology development of Artificial Intelligence (AI), Big Data, Internet of Things (IoT), and IT based technology can lead to the disruption for tertiary (higher) education in Indonesia. During the pandemic, most of higher education in Indonesia have operated in an online (distance) learning method using available platform for more than one year. Consequently, it is now becoming a new normal and new pathway for many higher education institutions (HEI) in Indonesia. Higher education institutions try to adapt with the pressures especially due to corona virus pandemic for their Teaching, Research, as well as Community Service. These efforts have been done for more than one year by HEIs to adapt with the fast-changing strategic environment. Consequently, the stakeholders of HEI were getting used to the new normal of education i.e., an online class instead of in-person class. The question is for how long the online class will last, and what will the higher education will look like in the future. This is important for future preparation of HEI in order to ensure their sustainability especially when strategic environment unexpected and surprisingly change rapidly.

This paper will elaborate possible innovation initiatives in the new normal era, that will be faced after the corona virus pandemic. Before elaborating the possible future scenarios of innovation initiatives, it is important to elaborate the assessment of pressures, positive and/or negative, due to the corona virus pandemic. This paper will also elaborate the what-if scenarios in the new normal era to ensure the HEI preparedness especially related to the innovation to be focussed. This paper uses experiential and case study method to draw the conclusion.

***Keywords:*** *Innovation in Higher Education Institution, Corona Virus Pandemic, The New Normal, Tertiary (Higher) Education*

## **1. INTRODUCTION**

Since the so-called corona virus pandemic have spread out around the world, including but not limited to Indonesia, that no one in tertiary education ever predicted before. Tertiary education since then having experience new pressures in its operation simply because nobody was allowed to do in-person activities as before. The effects of this pandemic were getting more than just disrupting the in-person activities, it naturally has also impacted to the academic operation as a whole. Tertiary education may face the survival unfortunate situation due to the corona virus pandemic. Logically in the situation like this only those that have strong financial capability can afford to continue the operation as before, the other may find ways to make the operation become efficiently as survival efforts. If not, lay-off of the people may not be hindered. Lay-off may be considered a better choice compared to

other that they have to quit the business for good as they were unable to survive from the pressures.

## **2. PRESSURES ON TERTIARY EDUCATION**

Term of pressure, on tertiary education, can be seen in different meaning, it is sometimes not actually a pressure it can be in a form of threats, challenges, disturbances, shocks, or else. In this paper they are simply called as pressures. The way we give meaning on pressures reflect the way we respond to them. Although, in general, term of pressures usually viewed in negative meaning, as a consequent the pressures should be hindered. On the contrary if pressures viewed in a positive meaning or at least neutral as a consequent, the pressures will be handled appropriately as an opportunity for innovation/improvement. For the sake of improvement and innovation therefore pressures will be better to be

viewed in a neutral meaning so that they can be used as a starting point of innovation.

This paper assessed pressures as in table 1. in two conditions i.e.: (1) prior pandemic of covid, and (2) during/after the pandemic of covid.

weaknesses of online class among others are: (1) less personal interaction, (2) less two ways communication, (3) less gesture touch, (4) less media for explanation, (5) boring, (6) more tired, etc.

2.1.2. *Teaching assessment with +++ result:*

**Table 1.** The assessment of pressures in tertiary education \*

Dimensions	Prior Pandemic	During/After Pandemic
<b>ACADEMIC</b>		
1. Teaching	+++	+ or ++++
2. Research	++	+
3. Community Service	+++	+
<b>NON-ACADEMIC</b>		
1. Student Enrolment	+++	-
2. Teaching delivery	++	+
3. Financial health	+++	-

\* The assessment was done subjectively based on author experience in tertiary education

Results from the subjective assessment of the author in table 1 shows that during/after corona virus pandemic almost all dimensions were getting worst compared to prior pandemic. The teaching dimension, perhaps the one that important in tertiary education, has been assessed with less + and more ++++ result. This paper assessed the attribute of teaching among others are: (1) To transfer knowledge, (2) To inspire, (3) To build two ways communication, (4) To challenge student, (5) To build chemistry, (6) To generate enthusiasm, and (7) Etc. These are actually a personalization engagement attribute of lecturer that will differ to everybody. The assessment result of teaching dimension can be explained as follows:

**2.1. Academic**

The assessment of pressures, table 1, in term of academic includes teaching, research, and community services [1]. This paper elaborates especially on teaching as it has two contradictory assessment results. While research and community services have almost identical result.

2.1.1. *Teaching assessment with + result:*

Due to corona virus pandemic almost all higher education institutions (HEI) around the world have shifted from in-person class to online class. Regardless how good the quality, there is no choice for them other than shifting to online class. The purpose is simply to ensure the continuity of the teaching while minimizing the risk. The hope is to return to normal in-person class once the corona virus pandemic is over. In-reality, after more than one year there is no sign that the pandemic will be over soon, consequently the online class is now become the new normal of teaching. According to the subjective assessment from the author, the quality of online class is low compared to in-person class so that the on-line class needs an innovation to improve its quality. The probable

The positive assessment of online class is that by using the available technology than the exposure can become borderless so that the lecturer with world-class quality can be sourced from anywhere around the world with reasonable cost compared to traditional teaching [2]. Consequently, student experienced teaching delivered by world-class lecturer that they never experienced before during the normal situation. Furthermore, by online teaching student is now able to choose universities with respected brand name around the world to enrol with cost far less compared to normal situation. For universities, they are now able to attract students around the world more easily using available technology [5]. This assessment leads to positive judgment on teaching with online class.

**2.2. Non-Academic**

The assessment of pressures, table 1, in term of non-academic includes: (1) student enrolment, (2) teaching delivery, and (3) financial health. This paper focuses especially on enrolment and financial as it has two negative identical result. Due to the negative results of the assessment therefore this paper categorizes them as critical threats to be further analysed as follows.

**3. THE THREATS**

The reality of corona virus pandemic is that tertiary education in Indonesia have to find ways to sustain themselves with similar quality or less acceptable quality. Another reality is that tertiary educations have to find ways due to the pressures of the pandemic that lead to threats, among others the most important are: (1) financial difficulties, and (2) enrolment difficulties. If they are unable to counter these threats then it is not surprisingly will end up with, in the worst case is out of the business. The overview of these threats is explained below:



### 3.1. Threats of financial difficulties

The threats of financial difficulties can be caused by imbalance between revenue and expenses. The corona virus pandemic on the one hand has impacted directly to revenue generated by the organizations simply due to inability to make revenue initiatives by programs that gather people. The only way for the organization to generate revenue in this situation is by online initiatives, and this is not easy. On the other hand, organizations have to cover all expenses and costs related to the operation of education. The situation getting worst because enrolment drops considerably by any reasons. One factor that give more pressure to the situation is probably due to new-normal competition among higher education institution. Today, it is very sad to see huge campus building with no people activities for more than one year and not sure when it will be back to normal again.

### 3.2. Threats of enrolment difficulties

The threats of enrolment difficulties are actually not a new issue in higher education institution (HEI) nowadays. The difficulties involve many aspects in enrolment management such as subject of study, quality, course delivery, competition, marketing, branding, pricing, and etc. These difficulties are getting worse due to the corona virus pandemic in which almost all HEIs around the world offer similar method of teaching i.e., online-learning. Online-learning is actually not a new method of learning as the so-called virtual universities has been in practice to offer degree level programmes [3]. There is no choice, of course, other than going online. So, what make the different between one institution to other if they are all going online?. One may think on the software platform, the quality of the platform, the lecturer quality, the courses relevance or what. If we ask to the lecturers to judge then they may have different opinion to students.

author indicated that lecturer quality still the most important aspect follows by quality and usability of the platform. No enthusiasm and boring teaching delivery are perhaps the worst online teaching method and that is not easy to handle. Consequently, as every organization use similar online teaching method than the un-interesting teaching delivery will lead to enrolment difficulties. On the contrary, those who can innovate the online-teaching as expected by students will get more credits.

## 4. CONCEPT OF INNOVATION TO COUNTER THE THREATS

In order to ensure sustainability of the organization, therefore the form of threats especially those considered critical must be countered attack with innovation. Logically, to be able to control the situation the magnitude of effort and energy to counter attack the threats must be higher than the threats themselves. Figure 1 indicates four areas of innovation that are considered important to counter attack the threats among others are: (1) Enrolment, (2) Teaching/ Academic, (3) Income Generating, and (4) Lecturer [4]. Innovation on these four areas must be addressed to ensure the two critical threats i.e.: (1) enrolment difficulties, and (2) financial difficulties are handled accordingly to ensure continuation of HEI operation throughout the uncertain time of corona virus pandemic. There must be two considerations on the innovation scenario related to the uncertain time of corona virus pandemic i.e.: (1) the pandemic will be over, and (2) the pandemic will not be over. The most difficult situation is considered no. 2 that the pandemic will not be over, at least for couple of years. Therefore, innovation in the four areas must be addressed to define a next normal way considering that the education will always be online or at least blended.

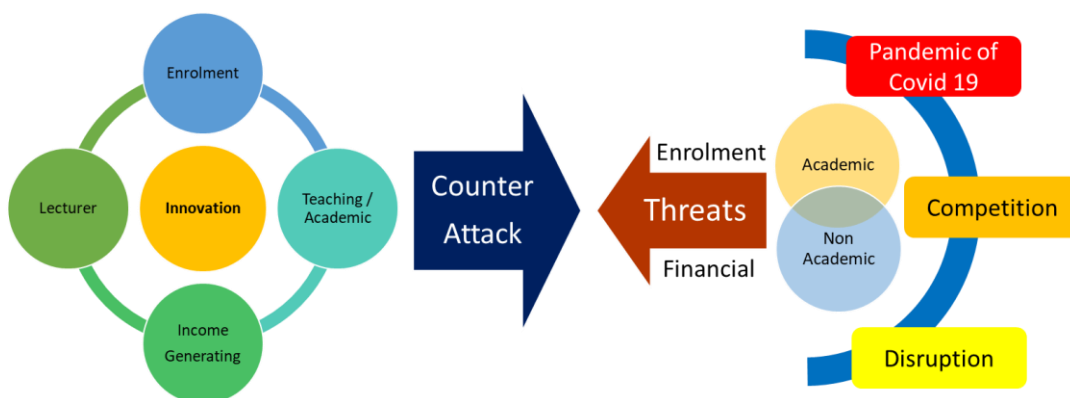


Figure 1 Concept of innovation to counter the threats.

Anyway, these are considerable factors that lead to the success of enrolment. The subjective assessment of the

## 5. DISCUSSION

This paper has identified at least five areas of innovation to counter attack the critical threats. The possible innovation initiatives among others can be described on the table 2. Although many references can be

environment, it is not simply that the concept and or strategy can be directly applied to the local environment of tertiary education considering that the main biggest

**Table 2.** Possible innovation initiatives

No.	Area of Innovation	As-is (Existing practice)	To-be (Area of possible innovation)
1	Enrolment	Enrolment has been done for high school students prior or after their graduation with traditional method in three stages: (1) Selection based on student academic achievement, (2) Selection based on entrance test, and (3) Selection based on ability to pay the tuition fee. For selection based on enrolment test the acceptance following procedure of a. registration (with or without) discount, b. Entrance test (Basic courses like mathematics etc. by paper or computer-based test), c. Acceptance based on criteria of entrance test score.	Enrolment should be better done in two schemes: (1) Using existing traditional method, and (2) New method of enrolment. The enrolment can be done both off- and on-line system.  Improvement on the existing traditional method of entrance test is that the students can take the test instead of only one time, they are allowed to do it in three times, and the best score of them will be used in the selection process.  For the new method of enrolment, the process will not be based merely on entrance test but most importantly be based on track record both academic and non-academic of the student. Therefore, in this case criteria of selection should be based on: (a) Personal/self-description, (b) Statement of purpose, (c) References, and (d) Life achievement. This innovation provides opportunity for active students who have character, and determination rather than pure academic excellent only.
2	Teaching/ Academic	Traditional method of online teaching was done using available platform that still lack of personal touch. Teaching must be done in 14 times of meeting. Assessment will be done after the 14 times class meeting has been fulfilled.	Define active teaching using any digital method that can boost excitement both for lecturer and student. Teaching quality should not be assessed by how many times the class has been done. But how understand the student about the topic. Other innovation can also be done for the purpose of improving under-standing of the topic.
3	Income Generating	The only major source of income from student enrolment/intake.	Higher education institution must be able to capitalize the knowledge both tacit and explicit from lecturers as the primary asset of the institution. In this case, it is important that institution selects leaders with entrepreneurial sense who are capable of exploiting academic knowledge into a sound business whether in a form of education, research, or community service.
4	Lecturer	The major role of lecturer in existing practice is to perform the teaching, research, and community service. In this practice, all lecturer performing these roles in their respected fields regardless their background, talent, and exposure experience.	To be able to counter the critical threats, lecturers as the main primary asset of the organization should broaden their role beyond the traditional one. Especially for an entrepreneurial role on the respected field of knowledge. At the end lecturers should also bear responsibility for the sustainability of the organization.

found in related to enrolment or marketing in online market is still onshore [5], [6].



## 6. CONCLUSION

During and after the hard time of corona virus pandemic, organization operational sustainability must be fought with all resources and strengths in especially to counter attack the identified critical threats of financial and enrolment difficulties. To do so, this paper suggested possible innovation initiatives in the areas of enrolment, teaching/academic, income generating, and lecturer. Even though, the concept of innovation and its initiatives has not yet fully tested in the real-life environment, at least this will give foresight to any higher education institution. The concept of innovation and its initiatives itself defined base on the insight and hindsight of the author during his long years of exposure experience role in managing and leading higher education institution.

Thanks to the threats due to corona virus pandemic that trigger the innovation initiative in which will become a new opportunity to shape tertiary education in the future. It is expected that the hard time of corona virus pandemic will improve the maturity of tertiary education so that it become resilient toward possible future shocks and stresses.

Finally, it is ensured that no problems cannot be solved as long as we eagerly and focus to find possible solutions. Tertiary education as a back bone institution for young generation to learn and forge themselves in the preparation of their future role must be sustained whatsoever. There is only continuous innovation that will make any organizations resilient to shocks and stresses and ensure their sustainability due to any possible change of strategic environment.

## REFERENCES

- [1] Gembong Baskoro, The Era of Abundance and its Impact on Indonesia Higher Education, in: Proc. 3<sup>rd</sup> International Conference on Sustainable Innovation 2019 (ICoSI), Universitas Muhammadiyah Yogyakarta, 2019, pp. 135-137. <https://icosi.umy.ac.id/2019/wp-content/uploads/2020/04/isb8januari.pdf>
- [2] Gembong Baskoro, Knowledge Transfer from world-class professors and or professionals using online education system triggered by covid 19 pandemic: a case study, in: Proc. TECHNOPEX-2020 Institut Teknologi Indonesia, 2020, pp. 102-106. <http://technopex.iti.ac.id/ocs/index.php/tpx20/tpx20/paper/viewFile/339/198>
- [3] Yoni Ryan, higher education as a business: lessons from the corporate world, *Minerva* Vol. 39, No. 1 (2001), pp. 115-135 (21 pages) Published by: Springer. <https://www.jstor.org/stable/41821179>
- [4] Gembong Baskoro, Designing a Master Program to Cope with the New and Next Normal (VUCA World, Industry 4.0, and Covid 19): a case study, in: Proc. of The International Conference on Management of Technology, Innovation, and Project (MOTIP) 2020, July 25th, 2020, Surabaya.
- [5] Yin Cheong Cheng, New paradigm of borderless education: challenges, strategies, and implications for effective education through localization and internationalization, in: Proc. International Conference on The Challenge of Learning and Teaching in a Brave New World, issues and opportunities in borderless education, 2002, pp. 34-91. [https://www.academia.edu/1952365/INNOVATIONS\\_IN\\_EDUCATION\\_UNDER\\_TAKING\\_THE\\_PROBLEM\\_BASED\\_LEARNING\\_PBL\\_CHALLENGE](https://www.academia.edu/1952365/INNOVATIONS_IN_EDUCATION_UNDER_TAKING_THE_PROBLEM_BASED_LEARNING_PBL_CHALLENGE)
- [6] Ugur Demiray, N Serdar Sever, The Challenges for Marketing Distance Education in Online Environment, an Integrated Approach. Anadolu University 2009.
- [7] A. Mukti, "Strategi Pengembangan Karir Jafung Dosen", Semnas ABPPTSI dan Kemenristekdikti, 2019
- [8] S. Patdono, "Strategic Inflection Point pada Pendidikan Tinggi", Semnas ABPPTSI dan Kemenristekdikti, 2019
- [9] M. Lipman. *Thinking in Education*, 2nd ed., Cambridge University Press, 2003.
- [10] Robert J. Howlett, Bogdan Gabrys, Katarzyna Musial-Gabrys, and Jim Roach (Eds.). *Innovation through Knowledge Transfer* 2012, Springer, 2013



# Certificate of Appreciation

This certificate is awarded to :

**Gembong Baskoro**

as Author of Paper :

**Tertiary (higher) education in Indonesia under pressure: innovation towards the next normal as a consequence of pandemic Covid 19**  
of the 3<sup>rd</sup> International Conference on Business and Management Technology

July 31<sup>st</sup> 2021

Organized by :

BUSINESS  
MANAGEMENT



ITS

Co-Host



Double Degree Partners :



THE UNIVERSITY  
OF QUEENSLAND  
AUSTRALIA



**IConBMT**  
The International Conference on Business  
and Management of Technology

**Dr. Ir. Janti Gunawan**

General Chair of IConBMT 2021



# Certificate of Appreciation

This certificate is awarded to :

**Gembong Baskoro**

as *Presenter*

of the 3<sup>rd</sup> International Conference on Business  
and Management Technology

July 31<sup>st</sup> 2021

Organized by :

BUSINESS  
MANAGEMENT



ITS

ITS  
Institut Teknologi Sepuluh Nopember

Co-Host



Double Degree Partners :



THE UNIVERSITY  
OF QUEENSLAND  
AUSTRALIA



**IConBMT**  
The International Conference on Business  
and Management of Technology

**Dr. Ir. Janti Gunawan**

General Chair of IConBMT 2021



## Letter of Acceptance

Dear **Gembong Baskoro** (Paper #002),

Paper Title: **Tertiary (higher) education in Indonesia under pressure: innovation towards the next normal as a consequence of pandemic Covid 19.**

Congratulations!!! On behalf of the IConBMT 2021 committee, we are pleased to inform that your paper has been accepted for presentation in IConBMT 2021 conference, which will be held on July 31<sup>st</sup>, 2021 by online. Please follow the listed points to prepare your final version of your paper/abstract:

1. Please revise your abstract based on reviewers' comments below (in Easychair system). You should consider putting the affiliation name correctly.
2. Please update your revised version of abstract to Easychair submission system with the full paper attached.
3. Please register to the conference, at least one author of each paper should register. Please make the payment via Bank Transfer to the following account detail:  
Bank Name: BANK MANDIRI  
Account number: 8861 71010 0519001  
Account name: ICONBMT 2021
4. Please also confirm the registration by sending the proof to <http://intip.in/iconbmt2021registration>
5. Upon there is a problem with the payment, please inform us via WhatsApp to Mrs. Ni Gusti Made Rai (+62 812-3086-7023) or Mr. Bahalwan Apriyansyah (+62-857-4854-0520) by quoting your paper number.
6. Please visit the conference website to find all the information and updates about the conference venue, location, and conference program.
7. Please note that each accepted paper/abstract should be presented at the conference.

We look forward to meeting you in IConBMT online venue.

Best Regards,



Dr. Ir. Janti Gunawan, M.Eng.Sc., M.Com.IB.

IConBMT 2021 Conference Chair

<https://www.its.ac.id/mb/conference/iconbmt2021/>

Important Dates:

- Full paper submission deadline : June 20th, 2021
- Registration : June 12th, 2021 – July 12th, 2021
- Conference date : July 31st, 2021



## ***Assignment Letter/Surat Tugas***

No. AL/MME-SGU/490/VII/21  
 Date 25 July 2021  
 Page 1 of 1  
 Doc. Type Main Document / *Dokumen Utama*

**Dr. Ir. Gembong Baskoro, M.Sc**

**Activity Assignment**

***Penugasan Kegiatan***

Head of Master of Mechanical Engineering Study Program

*Ketua Program Studi Magister Teknik Mesin*

**In consideration of:**

His appointment as the Head of Master of Mechanical Engineering Study Program under agreement no. SK/004/HR/VII/2020.

**Mengingat:**

*Pengangkatannya sebagai Ketua Program Studi Magister Teknik Mesin di bawah perjanjian no. SK/004/HR/VII/2020.*

**Herewith permits to**

Name :  
 Position :  
 Faculty :

***Dengan ini menugaskan kepada***

Dr. Ir. Gembong Baskoro, M.Sc  
 Lecture of Master of Mechanical Engineering Study Program/*Dosen Magister Teknik Mesin Program Study Engineering and Information Technology/ Teknik dan Teknologi Informasi*

To become a presenter on the following activity:

*Untuk menjadi pemakalah pada kegiatan berikut ini:*

No	Event / Acara	Organizer / Penyelenggara	Date / Tanggal	Venue / Tempat
1.	3rd International Conference on Business and Management Technology	ITS Surabaya	Saturday, 31 July 2021	Zoom Meeting

**Assignor / Pemberi Ijin:**



**Dena Hendriana, B.Sc., S.M., Sc.D**  
 Head of Master of Mechanical Engineering  
*Kepala Jurusan Magister Tehnik Mesin*