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International Conference on Management, Accounting, and Economic

SUSTAINABLE BUSINESS IN THE DIGITAL ERA

Faculty of Economic and Business Universitas Trisakti, Aston Kartika Grogol Hotel & Conference Center, Jakarta - Indonesia February 13th -14th 2020

BOOK OF ABSTRACT

Co-host:



































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Report from committee

Dear participants of ICMAE 2020,

It is with great satisfaction that I present to you the Book of Abstract of the very 1st International Conference on Management, Accounting, and Economics held in Jakarta, Indonesia, February 13 - 14, 2020.

The ICMAE is an international conference that aims to bring together academics, researchers, students, and practitioners in an Economic and Business scientific forum to discuss solutions for the arising problem. It is particularly designed to provide an active and productive atmosphere that encourages all participants to share their experience, ideas, and data regarding any topics related to Digital Human Resources and Management, Financial Management and Accounting, Digital Economy, Entrepreneurship, E-Commerce, Financial Technology, as well as Sustainability Business. There are 169 scientific papers from a total of eight countries, including Indonesia, Singapore, Malaysia, Japan, Nigeria, the United Kingdom, Pakistan, and Qatar, were submitted through this forum and made a contribution to the most recent scientific finding in the field of Economics and Business. This conference was supported by fifty three universities which among of them as co-hosts. It has also been our pleasure to anounce that any publications made by this conference will be indexed by Clarivate Analytics, Web of Science.

In honor of all contributed authors and invited speakers, this book is created as a collection of abstracts from the submitted papers that are carefully arranged and organized to provide participants with a brief description regarding the discussed topic. We deeply hope that through this creation, new ideas and innovation can continuously emerge which stimulates further research and study for a sustainable future.

Last but not least, we would like to thank all speakers, co-hosts, committee, and participants for their contribution.

Conference chair,

Sekar Mayangsari

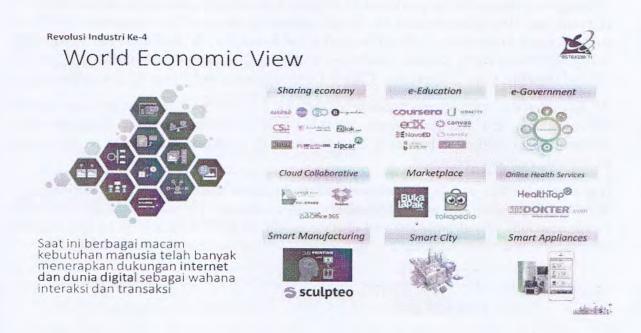
Welcome Speech

SUSTAINABLE BUSINESS IN THE DIGITAL ERA

Ali Ghufron Mukti

(Acting Rector of Trisakti University)

The world is always change. Nothing is an eternal except the change itself. Industrial revolution 4.0 has changed many aspects of human life and the interaction among them. The change and it's pace of the change is beyond the imagination of human being. The characteristics of the industrial revolution 4.0 and digital economy are as follows: internet of things, artificial intelligence, new material, big data, robotics, virtual reality, augmented reality, cloud computing, addictive manufacturing of 3D printing, nano technology and bio-technology, genetic editing and e-learning as well as tele-medicine.



With the above characteristics of industrial revolution 4.-0, lead to the change of the world economic view. Sharing economy, market place, e-education, e-government, e-banking, financial technology, cloud collaborative, online health services, smart manufacturing, smart city and smart appliances, with very limited amount of cash capital, some one may be able to open mall electronically.

In this new world economics view, some one who is having business have to be able to survive and sustainable, companies should derive value from embedding creative and innovative approaches to sustainability across their organization and supply chain. He or she as a business leader has to have an extensive knowledge and skill so that he/she is confident to argue his/her business problems for sustainability informed by a rich understanding of the impact of current global economic, social, health and environmental pressures. For example with global economic challenges due to China-United State trade war and the pandemic of novel corona

virus started from Wuhan China spread to many countries, the questions are how the leaders of the countries and business will response to this unpredicted pressures situations. As we know that international retailers have closed operations in China, the furniture seller Ikea and coffee shop Starbuck as well as other shop chains. Many overseas airlines have stopped flights to China and international hotel chains have been offering refund. How then the problems related to integrated international chains in various sectors such as transportation (car, motor etc), electronic devices (mobile phones, computers etc), tourism, financial market, stock market, industrial commodities etc). It is predicted that Chinese economy will grow less than 4% in the first quarter of 2020 from a year earlier. The global economy will be definitely affected.

It is important therefore, the faculty of economy and business should be able to produce human resources who understand the global commitment on sustainable development, who understand and be able to analyse the business models that drive change, who able to communicate the competitive advantages of being a purpose-driven leader to management, leadership and other key stakeholders, able to build collective efforts and make business as a catalyst for system level change in the face of significant global issues such as trade war, pandemic of corona virus and other global economic pressures.

Although we realize that as predicted by Clayton Christensen a disruptive book writer from Harvard, that 50% of universities in US will collapse in the next 10-15 years and 60-70% of subjects learnt in university will not be used in the future job. At least there are 5 Cs that the university should equip to their students. C number 1 is Computational thinking, C no 2 is Critical thinking, C no 3, Creativity, C no 4, Communication and C number 5 is collaboration.

We hope that this international seminar will provide a forum for sharing on the most updated current global and business issues, result of related research results, facts, abstracts, publications as well as experiences from outstanding speakers, participants to build more sustainable business and world.

It is demanded that we all, government leaders, business leaders should have collaborative efforts to shape better and more sustainable world, so that not only we hope be able to survive in the economic global pressures and challenges but we all will be able to be live in better environment and more sustainable of our world as well as successfully build society 5.0.

Keynotes Speakers



Prof. dr. Ali Ghufron Mukti, M.Sc, PhD
(Rector of Universitas Trisakti)

Educ	cation		
No	Degree	University	
1.	S1/dr.	Universitas Gadjah Mada	
2.	Master	Mahidol University	
3.	Doctorate	University of Newcastle	
Job 1	Experience		
No	modern volume 227	Job Description	Time
1.	Director of Hi	aman Resource of Higher Education	30 Juni 2015 – now
		•	
2.	Plt. Rektor Un	niversitas Trisakti	5 Sept 2016 – now

International Publication (The Last Three Years)

No	Year	Title	Journal
1.	2015	A Drug Cost Estimation Model and its Determinant Factors for Breast Cancer Patient Hospitalized in Indonesia	Health Economics Journal Vol. 7, No. 10
2.	2017	The Strategy to Achieve Universal Health Coverage Membership in Indonesia	Research Journal of Pharmacy and Technology (accepted)
3.	2018	Magic Realism: The Process of Recentralisation in Indonesia through the	Health Policy (submitted)

No	Year	Title	Journal
		Introduction of National Health Insurance (submitted)	11:
4.	2018	Ability to pay and willingness to pay for national Health insurance in a developing economy: a pilot study of the informal occupational sector in Indonesia	Health Policy and Planning Journal (Manuscript)
5.	2018	Soursop Fruit (Annona Muricata Linn) Does Not Increase Serum Potassium Levels and Not Significant in Cardiovascular Risk Improvements	Journal of The Medical Sciences (Submitted)
6.	2018	Apoptosis-Inducing Effect of Fucoxanthin before and after Microencapsulation on Human Lung Cancer (H1299) Cell Line	Journal of Bioscience and Bioengineering (Submitted)
7.	2018	The Unmet Need of Stroke Patient in Indonesia: Is Home care a cost-effective alternative?	Manuscript

International Conference

No	Year	Title	Place
1.	2017	Speaker of French-Indonesia Research Stakeholders Seminar	Paris, Perancis
2.	2017	Speaker of International Society for Third Sector Research Asia Pasific Regional Conference	Jakarta, Indonesia
3	2017	Keynote Speaker on the 2 nd International Conference of Global Health 2017	IMERI, Jakarta, Indonesia
4	2018	Keynote Speaker on The 3rd Asian Congress in Nurse Education	Jakarta, Indonesia
5.	2018	Keynote Speaker on SEARAME Conference: Improving the Quality of Health Professions Education for The Better Future Health Service's: Indonesia Perspective.	Yogyakarta, Indonesia
6.	2018	Keynote Speaker on Seminar and Workshop with Nottingham University Expert Meeting: Research Strategy and Impact Agenda, an UK's Approach "How UK University Measure Impact and Prepare Impact Reports"	Jakarta, Indonesia

Member of National or International Association

1. 2013-2018	Chairman of SEAOHUN (South	SEAOHUN Foundation
	East Asia One Health University	
	Network) Foundation based in	
	Thailand	

Guest Lecturer / Examiner

Year	University
2018	Nottingham University, United Kingdom
2018	Harvard University, Amerika Serikat
2017	Coventry University, United Kingdom
2005	Vrije, University Amsterdam, Netherland
2005	Tokai University of Japan
2003	Asia University of Taiwan
2002	Health Service Academy in Pakistan
2000	Dhakka University in Bangladesh
2000	UKM, Kuala Lumpur Malaysia

Keynotes Speakers



Prof. Dr. Ir. Richardius Eko Indrajit, M.Sc, MBA, M.Phil, MA

(Chairman of Indonesia Security Incidents Response Team on Internet Infrastructure)

Professor Richardus Eko Indrajit (Head of Directors IT & Cybersecurity of Kartika Group and also Head of PGRI Smart Learning and Character Center) was born in Jakarta, Indonesia, 24 Januari 1969. Graduated cum laude from Surabaya Institute of Technology as Computer Engineer in 1992 and received full scholarship from Pertamina Oil Company to finish his study as Master of Applied Computer Science at Harvard University, Massachusetts, USA. He is also a holder of Master of Business Administration from Leicester University, United Kingdom, Master of Communication from London School of Public Relasions – Jakarta, and Master of Philosophy from Masstricht School of Management, the Netherlands. His Doctor of Business Administration degree was from Pamantasan ng Lungsod ng Maynila (University of the City of Manila), the Philippines and the University of Information Technology and Management, Poland.

He started his business, management, and information technology practices in Price Waterhouse Indonesia as Senior Consultant before joining several prominent corporations such as: Prosys Bangun Nusantara – Cap Gemini Consulting, Renaissance Indonesia, the Jakarta Consulting Group, Soedarpo Informatika Enterprise, and IndoConsult Utama. As an academician, he has been appointed as Chairman of Perbanas School of Information System and Technology, Research Director of Swiss-German University, and participated as active faculty members in several universities, which are: University of Indonesia, Atma Jaya Catholic University, Bina Nusantara University – Curtin University of Technology, Trisakti University – Edith Cowan University, and IPMI – Monash University. Currently he is the President of the Association of Higher Learning Institution in Computing and Information Technology Studies. Leading more than 700 universities and 1,500 program of studies all over the nation. He is also known as a President of International Association of Software Architect – Indonesian Chapter.

In government sector, he has been asssigned as a special staff various institutions, such as: Secretary General of National Auditing Board, Department of Communication and Information Technology, National Defense Board (Lemhannas), National Narcotics Body, and Central Bank of Indonesia – before finally appointed as the first Chairman of ID-SIRTII (Indonesia

Security Incidents Response Team on Internet Infrastructure). He is also a special advisory member to the Ministry of National Education (BSNP and DPT) and Ministry of Research and Technology (DRN).

He has been actively publishing more than 50 books and hundreds of national journals in the area of business, management, and information technology – most are coming from his experiences of practicing his knowledge and skills in different fields: banking and finance, telecommunication, manufacture, retail and distribution, aviation, oil and gas, transportation, education, healthcare, and other service-based industries.

His expertise in the area of information technology are: IT governance, IT strategic planning, cyber security, data center management, IT project management, IT audit and risk management, command center design and development, enterprise architecture, IT agility, big data, cloud computing, and artificial intelligence.

As a professor of computer science and information system from Asian Banking, Finance, and Informatics Institute Perbanas, daily he can be easily be reached through the following email indrajit@alumni.harvard.edu or eko.indrajit@KartikaGroup.com Presently, he is assigned as a Rector of Pradita Institute, a university established by Summarecon Agung Group.

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on al As a professor of computer science and information system from Asian Banking, Finance, and Informatics Institute Perbanas, daily he can be easily be reached through the following email indrajit@alumni.harvard.edu or eko.indrajit@KartikaGroup.com Presently, he is assigned as a Rector of Pradita Institute, a university established by Summarecon Agung Group.

As a professor of computer science and information system from Asian Banking, Finance, and Informatics Institute Perbanas, daily he can be easily be reached through the following email indrajit@alumni.harvard.edu or eko.indrajit@KartikaGroup.com Presently, he is assigned as a Rector of Pradita Institute, a university established by Summarecon Agung Group.



Prof. Dr. Normah Omar

(Director of ARI UiTM, Malaysia)

Qualification & Professional Affiliations

: DIA (ITM), BBA Accounting (Iowa),

MBA Accounting (Illinois),

PhD (Accounting) and CPA (Australia)

Research Interest

Financial Criminology, Forensic Accounting and Corporate

Integrity

Current Research

Anti-Money Laundering and Counter Financing of Terrorism: Roles and Functions of Designated Non-Financial Businesses and

Professions

Industry / Community engagement

Operational Review Panel Member, Malaysian Anti-Corruption Commission; Vice Chairman Asia-Pacific Management Accounting Association; Head of Corporate Integrity Research Group with Malaysian Institute of Integrity; Various research and grants-related committee at Ministry of Higher Education Malaysia.

Achievements (Awards/Recognition)

UiTM Best Researcher (2006 & 2007); UiTM Best Academic Award (2008); Global Islamic Finance Awards 2014; Global Islamic Finance Awards 2015; ACQ Global Awards 2015;

2018 as one of the Top 10 Most influential Women in Islamic Finance



Makoto Koido

(Vice President Mitsubishi Corporation in Indonesia)

Career

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on

April 2016-Current:

Vice President Director

PT. Mitsubishi Corporation Indonesia (Work at Indonesia around 4 Years)

January 2009-April 2016:

Group General Manager

Management Support Group

(Co.) Head of MC Group Business Support Office

Mitsubishi Corporation Financial & Management Services (Japan) Ltd.

July 2003-January 2009:

General Manager

Project Management Dept. Finance and Accounting Group

Thai-MC Company Ltd. (Work at Thailand around 6 years)

June 2002-July 2003:

Treasury Office (Co.) Controller Office/ Mitsubishi Corporation

August 1995-June 2002:

Foods Group Administration Dept./ Mitsubishi Corporation

March 1992-August 1995:

Corporate Accounting Dept. / Mitsubishi Corporation

April 1991-March 1992:

Group System Development Dept. / Mitsubishi Corporation

April 1991 Joined Mitsubishi Corporation

Education

March 1991 Graduated from WASEDA University

Faculty of Political Science and Economics, majored in Economics



MR. K.R.RAGHUNATH (Founder & C.E.O) Knowledge Integration Services (Singapore) Pte Ltd, Singapore Contact number: +6597981554 Linked In account: Raghunath K R

OR https://www.linkedin.com/in/raghunath-k-r-1701b737
Email: raghu@kisgroup.net

Holds Engineering Degree and MBA. He is Innovator, Creator and Promotor and has developed firsts-of-its-kind sustainable clean technologies. Under his leadership KIS GROUP has become the Most Awarded Biogas technology provider in Asia and is Market Leader with Number 1 position in Biogas Power and BIO-CNG projects in South East Asia.

Developed many innovative first of its kind ZPHB® (ZERO PONDTM, ZERO POLLUTIONTM SYSTEM & Higher BiogasTM), ZCT® (Zero Chemical Technology), Sustainable Clean Technologies for Solid and liquid waste from agricultural industries. Most of the projects are registered in UNFCCC as CDM projects. Instrumental in spearheading the Biogas industry in South East Asia and making KIS Group footprint in 6 countries India, Singapore, Indonesia, Malaysia, UAE, Colombia and Brazil.

Media: Interviewed by Channels News Asia in Singapore, The Times Now and technical articles in many International magazines – Info Sawit and Media Perkebunan. For these achievements in Innovative Sustainable Solutions he has been awarded in UK, Singapore, Germany and India.



Dr. Lilian Koh Noi Keng, Ph.D

CEO, Fintech Academy

Director, Center for Research and Innovation @NTUitive, a spinoff of NTU Advisor, NTU- Investment Interactive Club 17 years in Ministry of Education, 17 years in National Institute of Education Nanyang Technological University Singapore

Having served 17 years in Ministry of Education, Singapore and another 17 years in National Institute of Education, Nanyang Technological University (NTU), Dr Koh is now spearheading the new Fintech Academy in Singapore, working closely with the agencies driving fintech in Singapore and beyond.

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Dr Koh was the Chair of the Centre for Financial Literacy at the National Institute Education, Nanyang Technological University. In her academic role, she was in charge of the curricula design and administration of the post-graduate course modules for Economics, Business and Accounting Education. As a faculty member, she taught these 12 modules. She graduated from the National University of Singapore (NUS) Business School and obtained her PhD from Curtin University of Technology. She was also appointed consultant to the Academy of Singapore Teachers MOE, UNESCO, and National Healthcare Group. She was also faculty associate at A*STAR where a "snap and learn" mobile app was created for learning trails. She is into gamification, artificial intelligence and mobile apps research that leverage on backend analytics for teaching and learning and flipped instructions. She advocates evidence-based practices and diversity in pedagogical approaches. Being technologically savvy, she embraces innovation and galvanizes educators in sharing generously as a networked learning community. Her engaging workshops and innovative events were rolled out at the Learning Festival by Singapore Skills Future, MOE and international conferences. She was the Principal Investigator of several research projects, editor and author of several publications.

As Chair of the Centre for Financial Literacy at NIE, she has initiated financial literacy programmes at national level and is spearheading innovative programmes through the 5,000 member strong NTU Investment Interactive Club (NTU-IIC) as the Advisor to the Club. Her success stories for nationwide implementation of financial literacy programmes in Singapore schools earned her invites to many countries to help kick-start their financial literacy programmes. She was also invited as a Visiting Professor to universities in Australia and Paris.

Organizing Committee



Sekar Mayangsari Chair



Luki Adiati Pratomo Co-chair



Wahyuni Rusliyana Sari Secretary



Erliana Banjarnahor Treasurer



Willy Arafah Committee



Robert Kristaung Committee



Tiara Puspa Committee



Jakaria Committee



Ice Nasyrah Noor Committee

Organizing Committee



Moh. Sidqon IT Supported



Sultan Febrian Staff



Arinda Deswanti Pertiwi Staff



Amelia Wanggi Staff

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- 2. Program Doktor Ilmu Ekonomi Konsentrasi Manajemen Stratejik Universitas Trisakti
- 3. STIE Jakarta International College
- 4. Sekolah Tinggi Ilmu Manajemen YKPN Yogyakarta
- 5. Universitas Bunda Mulia
- 6. STIE Bisnis Indonesia
- 7. Universitas Trilogi
- 8. Universitas Kristen Maranatha
- 9. Universitas Internasional Batam
- 10. Institut Keuangan Perbankan dan Informatika Asia Perbanas
- 11. Universitas Katolik Indonesia Atma Jaya
- 12. Universitas Kristen Krida Wacana
- 13. Universitas Bhayangkara
- 14. Universitas Islam Bandung
- 15. Universitas Pertahanan
- 16. Universitas Garut
- 17. Universitas MPU Tantular

Scientific Committee

- 1. Prof. Dr. Asep Hermawan, Universitas Trisakti, Jakarta
- 2. Juniati Gunawan, PhD

Scopus ID: 56641401400 Universitas Trisakti, Indonesia.

3. Dr. Sari Yuniarti

Scopus ID: 57204632923 Universitas Merdeka Malang, Indonesia.

4. Irwan Trinugoho, Ph.D

Scopus ID: 56178586300 Universitas Sebelas Maret, Indonesia.

5. Moh Khoiruddin, M.Si

Scopus ID: 57196195880 Universitas Negeri Semarang, Indonesia.

6. Evi V Lanasier, PhD

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7. Prof. Dr. Wiwik Utami, Ak, CA

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8. Prof. Rozainun Abdul Aziz

Scopus ID: 35368249000 UITM, Malaysia

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10. D. Paul Scarbrough, PhD

Scopus ID: 6701531271 Brock University, St. Catharines, Canada

11. Ardi Gunardi, SE., MSi., CSRA

Scopus ID: 57191667735 Universitas Pasundan, Bandung)

Advisory Board

- 1. Prof. Dr. Bambang Soedaryono, Ak., CA., CPA (Dean of Economic and Business Faculty Universitas Trisakti, Jakarta)
- 2. Prof. Dr. Etty Murwaningsari, Ak., CA (Vice Dean of Economic and Business Faculty Universitas Trisakti, Jakarta)
- 3. Dr. Ir. Astri Rinanti Nugroho, MT (Universitas Trisakti, Jakarta)
- 4. Masako Saito (Kansai University, Japan)
- 5. Syukriy Abdullah, Ak., CA (Universitas Syah Kuala, Aceh)
- 6. Dr. Grahita Chandrarin, Ak., CA (Universitas Merdeka, Malang)
- 7. Nur Fadjrih Asyik, Ak., CA (STIESIA, Surabaya)
- 8. H. Kent Baker (American University, Washington, DC)
- 9. Ho Yew Kee (Singapore Institute of Technology, Singapore)
- 10. Florenz C. Tugas, PhD., CPA., CISA., (De La Salle University Philippines)

Venue





Aston Kartika Grogol Hotel & Conference Center, Jakarta, Indonesia

Address: Jl. Kyai Tapa No.101, Tomang, Kec. Grogol petamburan, Kota Jakarta Barat, Daerah Khusus Ibukota Jakarta 11440

Tel: (021) 21193101

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Theme and sub theme

This conference welcomes papers that explore but not limited to the topics below. The range of the topics covered by 1st ICMAE includes:

- Digital Human Resources Management
- Financial Management and Accounting
- Digital Economy
- Entrepreneurship
- E-Commerce
- Financial Technology
- Sustainability Business
- Enterprise Resource Planning
- Distributed Ledger Technology
- Blockchain
- Management Information System
- Accounting Information System
- Strategic Management
- Ethics and Governance
- Green Accounting
- Green marketing
- Digital Auditing

Rundown

Thursday, 13rd of February 2020

ange

Time	Schedule
08.00 - 09.00	Registration and coffee morning
09.00 - 09.15	Opening by MC
	Indonesian National Anthem "Indonesia Raya"
	Report from the committee
	 Dr. Sekar Mayangsari, SE, Ak, M.Si (Chair of ICMAE)
09.15 - 09.30	Welcome speech and opening ceremony of the conference
	• Prof. dr. Ali Ghufron Mukti, M.Sc, PhD (Rector of Universitas Trisakti)
09.30 - 09.45	Keynote Speech
	 Prof. Dr. Ir. Richardius Eko Indrajit, M.Sc, MBA, M.Phil, MA (Chairman of Indonesia Security Incidents Response Team on Internet Infrastructure)
09.45 - 12.00	
	 Prof. Dr. Normah Omar (Director of ARI UiTM, Malaysia)
	• Mr. Koido (Vice President Mitsubishi Corporation in Indonesia)
	 K R Raghunath (Founder & CEO of KIS Group, India)
	Moderator: Prof. Dr. Willy Arafah, M.M, DBA
12.00 - 13.00	Lunch
13.00 - 18.00	Parallel sessions
19.00 - 21.00	Gala dinner (MC: Dr. Lydia Rosintan S, M.Si)

Friday, 14th of February 2020

Time	Schedule		
07.30 - 08.00	Registration		
08.00 - 10.00	Parallel sessions		
10.00 - 11.00	Workshop "How to Publish in International Journal"		
	 Prof. Dr. Normah Omar (Director of ARI UiTM, Malaysia) 		
	Moderator: Juniati Gunawan, Ph.D		
11.00 - 12.00	Closing:		
	Closing speech and MoU agreement		
	• Dr. Yolanda Masnita, M.M. (Dean of FEB Universitas Trisakti)		
	Co-host certificate		
	• Dr. Luki Adiati Pratomo, M.M (Co-chair ICMAE)		
12.00 - 13.30	Lunch		

Abstract

International Conference on Management, Accounting and Economic 2020

[ABS-164]

EMPIRICAL TESTING OF THE MEDIATING EFFECT OF ABSORPTIVE CAPACITY AND MODERATION OF CULTURAL INTELLIGENCE ON INTELLECTUAL CAPITAL AND INNOVATION ANALYSIS ON THE TOURISM INDUSTRY

Wisnu Yuwono, Dadan Umar Daihani, Willy Arafah.

Universitas Internasional Batam, Universitas Trisakti, Universitas Trisakti

Abstract

The research's aim is to analyze the innovation trigger factor in the tourism industry sector. The research about innovation in the tourism industry, rarely found until nowadays. The researcher tries to analyze the effect of intellectual capital to innovation, intellectual capital to potential absorptive capacity (PACAP), the effect of intellectual capital to realized absorptive capacity (RACAP), The effect of PACAP to innovation with moderated by the cultural intelligence, and the effect of RACAP to innovation with moderated by the cultural intelligence. The research used primary data with 54 respondents, CEO (Chief Executive Officer) that manage tourism travel in Batam City. Through the analysis of Structural Equation Model (SEM) with SmartPLS version 3.0 software, can be resulted, there are: 1) Intellectual Capital doesn't affect directly to the innovation, but it must use RACAP; 2) Intellectual capital affect to PACAP and RACAP: and 3) the variable of cultural intelligence only has role as predictor variable in moderate the relation PACAP and RACAP to innovation. The result of this research will be used as a reference for the tourism managers in developing their business

Keywords: Intellectual Capital, Innovation, Potential absorptive capacity (PACAP), Realized absorptive capacity (RACAP), Cultural intelligence.

Topic: Strategic Management



Empirical Testing of the Mediating Effect of Absorptive Capacity and Moderation of Cultural Intelligence on Intellectual Capital and Innovation Analysis on the Tourism Industry

Wisnu Yuwono*
Universitas Internasional Batam
Batam, Indonesia
*wisnu@uib.ac.id

Dadan Umar Daihani, Willy Arafah Universitas Trisakti Jakarta, Indonesia

Abstract—The research aims to analyze the innovation trigger factor in the tourism industry sector. The research about innovation in the tourism industry rarely found until nowadays. The researcher tries to analyze the effect of intellectual capital to innovation, intellectual capital to potential absorptive capacity (PACAP), the effect of intellectual capital to realized absorptive capacity (RACAP), The effect of PACAP to innovation with moderated by the cultural intelligence, and the effect of RACAP to innovation with moderated by the cultural intelligence. The research used primary data with 54 respondents, CEO (Chief Executive Officer) that manage tourism travel in Batam City. Through the analysis of Structural Equation Model (SEM) with SmartPLS version 3.0 software, can be resulted, there are: 1) Intellectual Capital doesn't affect directly to the innovation, but it must use RACAP; 2) Intellectual capital affect to PACAP and RACAP: and 3) the variable of cultural intelligence only has role as predictor variable in moderate the relation PACAP and RACAP to innovation. The result of this research will use as a reference for the tourism managers in developing their business.

Keywords—intellectual capital, innovation, Potential absorptive capacity (PACAP), Realized absorptive capacity (RACAP), cultural intelligence

I. INTRODUCTION

The tourism sector has been riveting the attention of the economist in the whole world. This sector has grown and contributed positively to the hundreds of employees and move the other economic sector, such as manufacture, transportation sector, and information sector. In the Southeast area, tourism gives good potency because of the development of foreign visits of more than 10 %. But, Indonesia in the third grade among those ASEAN countries in foreign tourism visits. Besides, the Indonesian position is still the fifth for the development of the number of foreign tourist visits [1]. The superior human resource pillar and have quality is the main key to develop the tourism industry in Indonesia, as Human Resources support innovation in business development. No

wonder the tourism sector doesn't develop well because of the gradual decrease from 42 to 64 from 136 countries [2]. The quality of Human Resources is the main priority [3,4].

The development of the tourism sector needs innovation from the development of knowledge (absorptive capacity) in the innovation of the new product, in novelty development in radical innovation or disruptive in product developing innovation that already exists [5]. But absorptive capacity is affected by intellectual capital. Some of the researches about the intellectual capital to absorptive capacity show different results like [6]. The research shows that the intellectual capital with the variable of human capital, social capital, organizational capital to absorptive capacity dived to two variables, there are potential absorptive capacity (PACAP), with the dimension of acquisition and assimilation; and the variable of realized absorptive capacity (RACAP) with the dimension of transformation and exploitation, where the result shows the significant effect, except for social capital, but according to Nazarpoori; Cassol, Gonçalo, and Ruas [7,8], conclude that the three intellectual capital variables have significant effect. PACAP and RACAP push innovation [7,9,10], according to Leal-Rodríguez et al. [5], PACAP doesn't support innovation because of the skill difference from the team.

Batam City is one of the city in Indonesia that is famous as MICE City (meeting, incentive, convention, exhibition), that often holds a national and international event and has the geographic superior because it closes to the other country, those are Singapura and Malaysia. It is also supported due to Batam as the third open gate of foreign tourists in visiting Indonesia. But, the developing of foreign tourist after 2014 show a slower symptom than before 2014 [11]. On the other side, the hotel occupancy still on average in 2017 [12].

Some of the research above shows different results, so it is very interesting to research, moreover for Batam City, that has multi-ethnic society structure, that usually practices the cultural



intelligence element [13], so the cultural intelligence factor can be a capital to strengthen the relationship between absorptive capacity to innovation. Due to this thing above, so the problem that will analyze in this research is empirical testing of the mediating effect of absorptive capacity and moderation of cultural intelligence on absorptive capacity and innovation analysis on the Batam City tourism industry, so the problem that will analyze in this research are: (1). Is the intellectual capital effect on the innovation, potential absorptive capacity, and realized absorptive capacity? (2). Is the potential absorptive capacity and innovation? (3). Is the realized absorptive capacity an effect on innovation? and (4). Are the potential absorptive capacity and potential realized capacity effect to innovation, moderated by the cultural intelligence?

Innovation is the implementation from ideas, process, product or new service [14]. Innovation variable can be measured to be six things, those are product development frequency or new service, responsive feedback to the needs of customer, the development of company work, new service implementation, new technology and new method [15]. Intellectual capital consists of three dimensions. Those are human capital, social capital and structure capital, which the unformed asset and becoming the basic for the company to support innovation [6-8]. Absorptive capacity defined as the competency of employee and motivation to support to get external knowledge and the want to use those knowledge for the innovation company [7]. Absorptive capacity divided into two variable, those are potential absorptive capacity (PACAP), with the dimension of acquisition and assimilation; and the variable of realized absorptive capacity (RACAP) with the dimension of transformation and exploitation [6,16]. The cultural intelligence is the dynamic competency to avoid the cultural differences that inhibit exploration and transfer of knowledge in organization to improve innovation [17,18].

The intellectual is knowledge to build skills in the process of innovation development company [19] and to push new standards [6]. Besides that, the intellectual capital creates the organization structure in improving the relationship among the employee and push the innovation repairmen [20,21].

Intellectual capital consists of three-dimension; those are human capital, social capital, and structural capital. The employee knowledge creates (novelty ideas) called PACAP [7]. The aspects of human capital will push PACAP because it pushes the employee skill in operational activity [6,22]. Social capital with good interaction from various knowledge background will push PACAP [7], this thing will push PACAP when the management create participation management system [10]. Structure capital pushes the formal process in the organization [6], and the intensive that issued by the company will have a significant effect on PACAP [8].

The employee knowledge will create the new ideas that are useful and can take benefit directly for company, called realized absorptive capacity [6,7], so the interaction relation and collaboration will push the employee trust in implementing

knowledge that is useful for company [23], and the good organization resource utensil make the aim of the company can be reached better [6,7].

PACAP was formed by knowledge, so the next step is pushing the knowledge to become useful knowledge and can be implemented or often called RACAP, so PACAP affects directly to RACAP [24] and the organization member improve new view that is relevant to the aim of the organization [25]. PACAP will be more effective in improving RACAP if PACAP will distribute in every part of the organization [26].

Every component of absorptive capacity (PACAP and RACAP) will affect innovation [25]. PACAP affect innovation directly through feeling and the creative external organization election [18]. PACAP is made together with the element or the other organization capability, that mat is for innovating without the transformation effort and explicit and significant exploitation, so PACAP affects directly to the innovation [27]. PACAP will push innovation and depends on strong team capability [5].

RACAP is an important step to push innovation through implementing new knowledge [7,9]. RACAP push innovation through the collaboration among the employee [10], and directly because it can be directly alerted to be innovation input [18].

The cultural intelligence variable has a role as the moderate variable in interpreting PACAP, and RACAP to be innovation has a cognitive capability that connects to absorption and higher knowledge learning and assimilation for innovation [17,18,28].

Refer to the discussion above, so the new and the research model is on table 1:

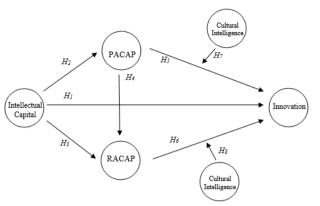
Variable Intellectual PACAP RACAP Cultural Innova Intelligence Capital tion [6] [7] v v v v [8] v v v [29] v v v [16] v v v [9] v v [10] v v v v [5] v T181 v Researcher

TABLE I. THE NEW RESEARCH

Source: a review of related literature, 2019

The conceptual framework that made, and shown by the figure 1 below:





Source: Related of literature review, 2019

Fig. 1. Research model.

II. METHODS

This research is the basic research with survey technique to test the hypothesis from the effect of intellectual capital (with the dimension of human capital, social capital and structure capital) to the innovation and absorptive capacity (with the dimension PACAP and RACAP), and the effect of absorptive capacity to innovation by moderated cultural intelligence. The event of the research was held in the tourism sector that listed in ASITA (Association of The Indonesian Tours and Travel Agencies) DPD (Regional Representative Council) Batam City, Riau Islands Province, consists of 70 companies. The sample of the research is the manager of tourism travel agent company in Batam City and take the sample with purposive sampling technique, the criteria are the listed company in ASITA DPD Batam City with the time of operation minimal three years and have been running the business until now.

All of the research variables were measured using a Likert scale (five Likert scales), from 1 (strongly disagree) to 5 each indicator/statement item. agree) for Measurement of innovation in this study refers to four dimensions, namely, marketing innovation, product innovation, process innovation, and organizational innovation [8]. On the other side, the intellectual capital variable consists of three dimensions, namely human capital, social capital, and structural capital, whose measurements refer to Engelman et al. [6] and Costa et al. [30]. PACAP consists of the dimensions of acquisition and assimilation, RACAP consists of the dimensions of transformation and exploitation [6], and the dimensions of the cultural intelligence variable are metacognitive intelligence, cognitive, motivation, and behavior [17,18]. The data analysis technique is partial least square (PLS) with SmartPLS software version 3.0. Some data analysis techniques used are an evaluation of measurement model measurements, which consist of convergent validity, discriminant validity, reliability test. Then proceed with a structural model evaluation, which consists of hypothesis testing.

III. RESULTS AND DISCUSSION

A. Results

In the first stage in data analysis, a convergent validity test is performing on all indicators, where the value of the loading factor must be more than 0.70, and indicators that do not meet must be eliminated or excluded from the model [31]. In general, this procedure has been carried out and meets the requirements. In addition to using the factor loading approach in determining convergent validity and Average Variance Extracted (AVE) assessment test was used. The result is the AVE value of all variables/dimensions is above 0.50, which means it meets the requirements. Whereas discriminant validity was done by using cross-loading values where values of more than 0.70 are generating for each variable, which means it also meets the discriminant validity requirements [31]. For reliability testing with Cronbach's alpha technique and composite reliability is above 0.70, so it can conclude that the construct that built proved to be reliable. The table 2 following are the results of testing the hypothesis:

TABLE II. THE RESULTS OF TESTING THE HYPOTHESIS

Hypothesis:	Description	T-Statistic	P-Value	Conclusion
1	Intellectual capital affects positive significance to innovation	1,537	0,125	Rejected
2	Intellectual capital affects positive significance to potential absorptive capacity.	14,040	0,000	Accepted
3	Intellectual capital affects positive significant to realized absorptive capacity.	5,386	0,000	Accepted
4	Potential absorptive capacity affects positive significance realized absorptive capacity	0,614	0,539	Rejected
5	Potential absorptive capacity affects positive significance to innovation	0,799	0,425	Rejected
6	Realized absorptive capacity affects positive significance to innovation	2,095	0,037	Accepted
7	The higher the level of cultural intelligence, the stronger the connection of potential absorptive capacity with the innovation.	0,103	0,918	Rejected
8	The higher the level of cultural intelligence, the stronger the connection of realized absorptive capacity with the innovation.	0,131	0,896	Rejected

Source: primary data processed, 2019.

B. Discussion

The intellectual capital variable does not directly influence innovation (H_1) . It is consistent with the research of [32], which concludes that there is still a lack of direct contribution of intellectual capital to corporate innovation due to



environmental factors. Variable intellectual capital directly affects the potential absorptive capacity (H_2) and realized absorptive capacity (H_3) . The results of this study support research [7,8], where the level of skills and education levels of employees and CEOs are relatively high, so they are skilled in solving the problem. Furthermore, according to this condition is also related to a minimalist organizational structure [7,8]. If you look at the average number of employees in a travel service company with an average number of employees, that is indeed the condition of their limited organizational structure.

The potential absorptive capacity variable does not significantly influence the realized absorptive capacity (H_4) , this condition shows that when employees get new knowledge, this has not been able to encourage the implementation of that knowledge into useful knowledge. This condition is limited found in the results of previous studies. The potential absorptive capacity variable does not significantly influence innovation (H_5) . Potential absorptive capacity is going to encourage innovation [10,25,33], but in this study, it turns out that there is no proven possibility because of the lack of strength of this variable where the average value is the lowest among other variables.

The RACAP variable directly influences the innovation variable (H₆). The results of this study support research [9,18,25,27], where companies have succeeded in developing old knowledge and new knowledge to produce innovative products. The cultural intelligence variable does not significantly moderate the relationship between PACAP (H₇) and RACAP (H₈) on innovation. But on the other hand based on the test results that the cultural intelligence variable has a significant direct effect on the innovation variable, so the form of the relationship as in this model is called the predictor moderation, meaning that the cultural intelligence variable only acts as an independent variable in the relationship model that is forming. One of the new findings in this study is that RACAP mediates the relationship between intellectual capital and innovation as in the following table 3:

TABLE III. ANALYSIS OF IC-RACAP-INNOVATION INDIRECT RELATIONS

Variable	Relationship	Beta	T	P-	Conclusion
		score	score	Value	
IC →	Direct	0,149	1,537	0,125	Rejected
Innovation					
IC→RACAP→	Indirect	0,702	2,006	0,045	Accepted
Innovation		X			_
		0,339			
		=			
		0,238			

Source: Primary data processed, 2019.

IV. CONCLUSION

Based on the above research, it appears that to increase the innovation, companies' intellectual capital cannot directly towards innovation, but must go through realized absorptive capacity as an intervening variable. The most influential intellectual capital is human capital, then social capital and

structural capital. Some of the recommended ways to travel service business managers are to improve training or take part in certification carried out by the National Professional Certification Board (BNSP), regular meetings to gather new knowledge and implement it into useful knowledge and still maintain a minimalist organizational structure but need attention also the addition of a special division of research and development departments. The next researcher is expecting to be able to complete this research in particular to explore dominant logic [34] and others such as innovation strategy and policy [35].

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