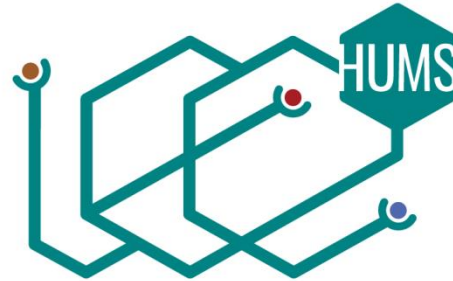
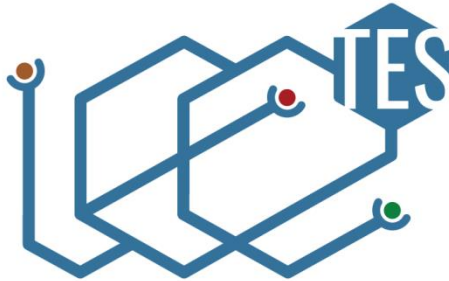




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ICE-TES Timetable

Paper Presentation 1

Day 1: Thursday, 1 July 2021

ROOM A at 10:30-12:00

Artificial Intelligence, Big Data, IoT, Robotics, Multimedia and Game	Authors	Title
ABS-037	Ratnadewi Ratnadewi, Aan Darmawan Hangkawidjaja, Agus Prijono, Rudy Wawolumaja, Kartika Suhada, Maria Christine Sutandi, Andrew Sebastian Lehman, Elty Sarvia and Kervin Lusiano	Exploration of an Indonesian Currency Legality Detection System by Utilizing Image Intensity of RGB Mean Values
ABS-047	Joseph Sanjaya, Mewati Ayub, Hapnes Toba	Comparative Study of Convolutional Neural Networks-Based Algorithm for Fine-Grained Car Recognition
ABS-063	Muliady Muliady, Tien Sze Lim, Voon Chet Koo, and Nathaniel Pius Winata	Estimation of Paddy Leaf Nitrogen Status Using a Single Sensor Multispectral Camera
ABS-065	Novie Theresia Br. Pasaribu, Erwani Merry, Kalya Icasia, Jordan Eliezer, Che-Wei Lin, Febryan Setiawan	Taekwondo Poomsae-3 Movement Identification by using CNN
ABS-076	Semul Tjiharjadi	Design and Implementation of A Path Finding Robot Using Modified Trémaux Algorithm
ABS-091	Marvin Chandra Wijaya	Priority Petri Net Multimedia Model For Non-Deterministic Events of Multimedia Presentations

Day 1: Thursday, 1 July 2021

ROOM B at 10:30-12:00

Bio informatics, Medical and Veterinary Science	Authors	Title
ABS-005	Hanna Sari Widya Kusuma, Hartini Tiono, Philip Onggowidjaja, Selonan Susang Obeng, Wahyu Widowati, Cintani Dewi Wahyuni, Cahyaning Riski Wijayanti, Muhamad Aldi Maulana, Aditya Rinaldy, Rizal Rizal	Anti-inflammatory Activity Screening of Pineapple (Ananas comosus) Core Extract in Lipopolysaccharide-induced RAW264.7 Cell Line
ABS-008	Wahyu Widowati, Rita Tjokropranoto, Cindy Damayanti, Hanna Sari Widya Kusuma, Aditya Rinaldy, Rizal Rizal	Potential of Black Tea (Camellia sinensis (L.) O. Kuntze) Extract as Anti-oxidant, Skin Anti-aging
ABS-009	Ervi Afifah, Hartini Tiono, Philip Onggowidjaja, Selonan Susang Obeng, Wahyu Widowati, Cintani Dewi Wahyuni, Cahyaning Riski Wijayanti, Muhammad Aldi Maulana, Tri Handayani, Rizal Rizal	Luteolin Possess Anti-Inflammatory Effect on LPS induced RAW 264,7 Cell Lines
ABS-029	Julia Windi Gunadi, Diana Krisanti Jasaputra, Decky Gunawan, Ludovicus Edwinanto, Kwee Lindawati, Harijadi Pramono, Adrian Suhendra, Ghita Sarwidyantny, Hanna Goenawan, Ronny Lesmana	The Effect of Different Intensities of Treadmill Exercise on FGF23 Gene Expression in Gastrocnemius and Soleus Muscles of Wistar Rats
ABS-038	Ermi Girsang, Chrismis Novalinda Ginting, I Nyoman Ehrich Lister, Cahyaning Riski Wijayanti, Wahyu Widowati, Rizal Rizal	Antioxidant Properties of Salacca zalcacca (Gaertn.) Voss Peel Ethanolic Extract Compared to Chlorogenic Acid
ABS-043	Tiur Gantini, Hans Christian	Analyse Protein Model of the SARS-CoV-2 Virus Using Data Mining Methods

Day 1: Thursday, 1 July 2021

ROOM C at 10:30-12:00

Bio informatics, Medical and Veterinary Science	Authors	Title
ABS-067	Didik Priyandoko, Wahyu Widowati, Cintani Dewi Wahyuni, Hanna Sari Widya Kusuma, Rizal Rizal	Antioxidant Properties of Soybean (Glycine max) Extract and Its Compounds
ABS-083	Dian Ratih Laksmiawati, Diah Ika Pratami, Wahyu Widowati, Hanna Sari Widya Kusuma, Cahyaning Riski Wijayanti, Cintani Dewi Wahyuni, Ervi Afifah, Rizal Rizal	Significance of Antioxidant Properties of Curcuma longa L. and Curcuma xanthorrhiza rhizomes
Dental Science and Advanced Dentistry	Authors	Title
ABS-034	Vinna Kurniawati Sugiaman, Henry Yonatan Mandalas, Ethan Yeshael Tanamal, Nathalia Cahya Calista, Natalia Pranata	The Effect of Agarwood Leaves Ethanol Extract on Porphyromonas Gingivalis Growth Inhibition and in Vitro Cytotoxicity Assay on Fibroblast
ABS-087	Aprianisa Obsidiany Daisy Tarigan, Hendra Polii and Rosalina Intan Saputri	Comparison of Two Dental Age Estimation Methods: the London Atlas and the Schour & Massler Atlas in 3-23 Years Old Indonesian
ABS-095	Rudy Djuanda, Eliza Madyanty, Almira Anggarini Witjaksono, Vinna Kurniawati Sugiaman, Natalia Pranata	The Effect of Apple Vinegar as an Irrigation Solution to Dental Root Canal Microstructure



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Paper Presentation 2

Day 1: Thursday, 1 July 2021

ROOM D at 14:00-15:30

Electrical, Electronics, Computer Engineering and Science	Authors	Title
ABS-049	I Gede Made Karma, I Ketut Gede Dharma Putra, Made Sudarna and Linawati	The Color Dissimilarity Based Method Among Other Segmentation Methods: a Comparison
ABS-054	Sodikin- Hendramawati Aski Safarizki	Safety Driving Behavior of Adolescents Pre-Ownning Driving License (SIM)
ABS-064	Erwani Merry Sartika, Novie Theresia Br. Pasanbu, Richard Setiawan, Reynaldy Felicius Gunawan, Dion Melvern Siswanto, Che-Wei Lin, and Febrian Setiawan	Virtual Reality Stimulants of Motor Ability through the Virtual Reality-Based Game
ABS-094	Zainal Anifin- Linda Fitri	Implementation of Battery Energy Storage System at Cirata PV Solar Floating for Reducing the Electricity Cost Production on Jamali Grid
Process Automation, Scheduling and Adaptive Industrial Engineering	Authors	Title
ABS-068	Novie Theresia Br Pasanbu, Vivi Anisandhy, Christina, Elty Sarvia, Rainisa Maini Heryanto, Erwani Merry Sartika, Audyati Gany, Olga Catherina Pattipawaej, Richard Setiawan, Jessica	Design of Bilateral Hand Movement Device
ABS-081	Winda Halim, Rainisa Maini Heryanto, Santoso, Christina, Erwani Merry Sartika, Audyati Gany, Andrew Sebastian Lehman, Anggie Ervany Haryono, Vieri Candhya Wigayha	Experimental Design of Driving with Distractions at Urban Area using Simulator Driving

Day 1: Thursday, 1 July 2021

ROOM E at 14:00-15:30

Geo informatics, Building Structure, Landscape and Architecture	Authors	Title
ABS-021	Robby Yussac Tallar, and Teofilus Sawang	Experimental Study on Velocity Profiles due to Ecological Barriers
ABS-023	Efferiki, Robby Yussac Tallar, Alexander Yovan Suwono	Investigation on the Effectiveness of Riprap Layer Design for Circular Bridge Pier
ABS-025	Cut Talitha Salsabila Nuraprii, Robby Yussac Tallar, Alexander Yovan Suwono	Comparative Study of Riprap Model Design for Scour Protection of Bridge Pier
ABS-026	Dea Lidya, Robby Yussac Tallar, Alexander Yovan Suwono	The Experimental Study of Optimum Thickness on Riprap Layer Design
ABS-027	Daud Rahmat Wiyono, Roi Milyardi, YosafatAji Pranata, and Robby Y Tallar	The Effect of Seismic Masses in Calculation of a 17 Multi-story Concrete Structure
ABS-030	Deni Setiawan, and Stefanny Abigail	Identification of Risk Factors for Delayed Time Schedule in Summarecon Serpong Playfield Preschool Project

Day 1: Thursday, 1 July 2021

ROOM F at 14:00-15:30

Geo informatics, Building Structure, Landscape and Architecture	Authors	Title
ABS-033	Roi Milyardi ¹ , Deni Setiawan ² and Tri Octaviani Sihombing ³	Flood Risk Assessment of Heritage Building in Semarang City
ABS-052	Jeffrey Limas Lim, Ayomi Dita Rarasati, and Mohammad Ichsan	Identification of Risks in Making Decision for Overseas Expansion by Indonesian State-Owned Construction Enterprise
ABS-053	Rumasoreng W.A.K., Karyadi, and Nindyawati	Pull-Out Resistance of Glued-In Rod Embedded Parallel to Grain in Laminated Bamboo with Two Edge Distance Variations
ABS-066	Marwahyudi, S Sangadji, Halwan Alfisa Saifullah, S.A. Kristiawan	Experimental Study of Shear Strength of <i>Purus Lobang Berkait</i> (PLB)-Masonry Wall
ABS-073	Noek Sulandari, Cindrawaty Lesmana, Cindy Maria Setyana	Engineering Education: Measuring the Relationship Between Knowledge and Confidence to the Student Performance
ABS-097	Ferlina Sugata, Nathalia Yunita Sugiharto, Nina Nurviana, Seriwati Ginting, Isabella Isthiyapraya Andreas, Shirley Nathania Suhanjoyo, Andi A. Hamzah and Heddy Heryadi	Bio-Cord as an Ecotechnological Wastewater Treatment for Productive and Attractive Urban Open Spaces



Paper Presentation 3

Day 2: Friday, 2 July 2021

ROOM G at 10:30-12:00

Health informatics, Public Health, and Clinical Research	Authors	Title
ABS-016	July Ivone, Stella T Hasianna and Victor Yohanes S, Vilva Ruthy W	Relationship between Low Birth Weight (LBW), Birth Length, Basic Immunization History and Stunting in Children Age 9 - 60 Months in Kabupaten Purwakarta
ABS-040	Nur Ika Haniastuti, Nike Susanti, Hana Apsari Pawestri and Kartika Dewi Puspa	Application of Freeze-thaw Harvest for SARS-CoV-2 PCR EQA Panel Material
ABS-046	Charissa Lazarus, Khamelia Malik	Suicide and Narcissistic Personality Traits: a Review of Emerging Studies
ABS-058	Elty Sarvia, Elizabeth Wianto, Erwin Ardianto Halim, Elvira Natalia	Expected Variables to Design Sleeping Facilities for the Elderly Based on the Potential Stakeholders Point of View
ABS-093	Wahyu Widowati, Teresa Liliana Wargasetia, Fanny Rahardja, Rimonta F Gunanegara, Hanna Sari Widya Kusuma, Seila Arumwardana, Cintani Dewi Wahyuni, Aditya Rinaldy, Cahyaning Riski Wijayanti, Tri Handayani, Rizal Rizal	Potential of Wharton's Jelly Mesenchymal Stem Cells as an Alternative Candidate for Covid-19 Therapy

Day 2: Friday, 2 July 2021

ROOM H at 10:30-12:00

Software Engineering, Information and Communication Technology	Authors	Title
ABS-011	Apriliana Fajri Wibowo, Yova Ruldeviyani	Factors Affecting Success of Team Members in Indonesia Scrum Implementation
ABS-013	Erwin Ardianto Halim, Monica Hartanti, Maresha Caroline Wijanto, Yosepin Sri Ningsih, Hendra Setiawan, Yudita Royandi, Yunita Setyoningrum, Berti Alia Bahaduri, Aulia Wara Arimbi Putri	The Application of Digital Module Design of East Sumba Woven Fabric on Interior Accessories
ABS-057	Bayu Rima Aditya, Dina Fitria Murad, Oscar Kamalim, Aditya Permadi, Andriyiah, Fathul Jannah, and Irawan Nurhas	The Use of Technology in Indonesian K-6 Education during Covid-19 Pandemic: a Review
ABS-060	Febina Anastasha, Teddy Marcus Zakaria	Build Software of Information Management Community Service Events
ABS-096	Bernard Renaldy Suteja, Wilfridus Bambang Triadi Handaya	User Interactions Analysis on a Moodle-based online Learning Management System during Pandemic

Paper Presentation 4

Day 2: Friday, 2 July 2021

ROOM I at 13:00-14:30

Nutrigenomics and Food Science	Authors	Title
ABS-019	TE Pramudito, EGA Putri, E Pahuphi, G Florencia, MR Gunawan, MP Pratiwi and Y Yogiara	Bioactivity of Soybean Tempeh Against Diarrhea Associated Pathogen is More Correlated with the Number of Total Bacteria than Specific Major Bacterial Phylum
ABS-031	Diana Krisanti Jaspurta, Julia Windi Gunadi, Penny Setyawati Martoso, Larissa, Yenny Noor, Ima Permanasari Gani, Erik Dwikumia Saiman, Desman Situmorang, Andi Haryanto	Effects of Herbal Ingredients (Allium Sativum, Punica granatum, Curcuma longa, Curcuma xanthorrhiza) on FATP3 Gene Expression in Aorta of High Fat Diet-fed Rats: a Preliminary Study
ABS-055	Sri Wulandari, Makhmudun Ainuri and Anggoro Cahyo Sukartiko	Biochemical Characteristics of Ground Robusta Coffee under Various Postharvest Technologies and Processing Parameters
ABS-092	Deni Rahmat, Wahyu Widowati, Etik Mardiyati, Eny Kusnini, Abdi Wira Septama, Yati Sumiyati, Mita Restinia, Sjaikhurizal El Muttaqien, Cintani Dewi Wahyuni, Hanna Sari Widya Kusuma, Muhammad Aldi, Tri Handayani, Rizal Rizal	Substantially Improved Antioxidant Activity of Modified Polymeric Nanostructure Entrapping Curcumin

Day 2: Friday, 2 July 2021

ROOM J at 13:00-14:30



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Machine Learning, Edge Computing, Deep and Federated Learning	Authors	Title
ABS-032	Hendra Bunyamin, Hapnes Toba, Meyliana, and Roro Wahyudiningsih	Breast Cancer Histopathological Image Classification Using Progressive Resizing Approach
ABS-082	Natalia Hartono	Multi-objective Bees Algorithm for Feature Selection
ABS-089	Audyati Gany, Meilan Jimmy Hasugian, Erwani Merry Sartika, Novie Theresia Br. Pasanbu, Hannah Georgina	Eye Abnormality Automatic Detection Using Deep Learning based Model

ICE-HUMS Timetable

Paper Presentation 1

Day 1: Thursday, 1 July 2021

ROOM K at 10:30-12:00

Family, Gender and Intergenerational Issues	Authors	Title
ABS-26	Jeanyfer, Eva Tuckyta Sari Sujatna, Susi Yuliawati, Trisnowati Tanto	Female Representation in <i>Legenda</i> : Tangkuban Perahu: a Transitivity Analysis
ABS-36	Affiah Z. Sani, Destie N. Ramadhan, Minerva Patricia, Pingkan C. B. Rumondor, Farah M. Djalal	How do Indonesians perceive Marriage? Semantics Analysis of Marriage as a Concept and its Relation with the Well-Being
ABS-50	Abd Rahman, Sri Rum Giryasih, Sigit Herumurti BS	Desire to Have Children Assessed from Socioeconomic Context Post Disaster in Palu
ABS-59	O.Irene Prameswari Edwina, Tessalonika Sembiring, Cindy Maria, Jean Eparanci	Family Resilience: Traits, Positivity, and Close Relationship in Adolescents
ABS-60	Ria Wardani, Ira Adelina, Heliany Kiswantomo	Predicting Retention: Sociodemographic, Motivational, and Perceived Social Support Factors
ABS-64	Fenty Lidya Siregar, Henni, Silvanni Comara	The Representation of Gender in Gamer's Politically Correct Bedtime Stories: a Critical Stylistic Analysis

Day 1: Thursday, 1 July 2021

ROOM L at 10:30-12:00

Financial Models, Accounting, Marketing and	Authors	Title
ABS-20	Tan Ming Kuang, Lidya Agustina, and Yani Monalisa	Using Educational Game for Improving Students' Knowledge and Interest in Investing in the Capital Market
ABS-24	Apriani D.R. Atahau, Imanuel Madea Sakti, Andrian D. Horuta, Min-Son Kim	Green Microfinance and Renewable Energy: Empowering the Role of Women in Rural Areas
ABS-34	Yenni Merlin Djajalaksana and Doro Edi	Utilization of Digital Marketing after Covid-19 Pandemic in Indonesia Businesses
ABS-41	Moh Farid Najib	Assessing Business Performance of the Traditional Market Trader: the Role of Buyer-Supplier Relationship and Dynamic Capabilities
ABS-51	Maya Malinda, Asni Harianti, Yolla Margaretha, Henky Lisan Suwarno, Kaleb Immanuel Yahya, Miki Tjandra	Comparison of Financial Literacy for Micro, Small and Medium Enterprises Entrepreneurs at Bojong Soang upon Using Financial Planning Application "SAKA (paSAK Abdi)"
ABS-57	Rhosalina Damayanti, Adrian Izaak Rompis and Aprina Nugrahesthy Sulistyia Hapsari	Testing the Internal Control of Simda Application in Effort to Improve Public Accountability

Day 1: Thursday, 1 July 2021

ROOM M at 10:30-12:00

Financial Models, Accounting, Marketing and Economic Growth	Authors	Title
ABS-62	Rima Kusuma Rini, Nanda Ayu Wijayanti	Does Socioeconomic Factors drive Peer to Peer Lending? Analysis in Indonesia
ABS-65	Christina Wirawan	Bibliometric Analysis of Product-Service System Related to Life Cycle
ABS-77	Elvira Luthan, Yulia H. Yeni, En Besra	Analysis of Factors Affecting the Sustainability of Village-Owned Enterprise in the Province of West Sumatera
ABS-80	Ita Salsalina Lingga	The Importance of Internal Control on Accounting Information System's Quality: Survey on Banking Sector
ABS-99	Ilham Pranata, SeTin SeTin	The Roles of Organizational Politics and Fairness in the Relationship between Relative Performance Evaluation and Managerial Performance
ABS-110	Marcellia Susan, Jacinta Winarto, Agus Anbowo, Yusuf Osman Raihin, Martalena, Herlina, Herman Kambono, Enny Prayogo	Sustaining Customer Loyalty in Higher Education

Paper Presentation 2



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Day 1: Thursday, 1 July 2021

ROOM N at 14:00-15:30

Financial Models, Accounting, Marketing and Economic Growth	Authors	Title
ABS-135	Rifat Hijira, SeTin SeTin	The Interactive Effects of Superior Trust and Subordinate Involvement in Decision Making on Budget Gaming and Budget Value
ABS-139	Michael Christian, Lasmary RM Girsang, Henilia Yulita	Measuring Ease of Use Aspects of Shopee Usage Behaviour During Pandemic Using the PLS-SEM Approach
Psychological, Education and Social Resources in the New Normal	Authors	Title
ABS-75	Yuspendi, Trisa Genia C. Zega, Indah Soca R. Kuntari, Lie Fun Fun, and Ida Ayu N. Kartikawa	The Role of Adult Attachment and Spiritual Well-Being Towards Wife's Marriage Satisfaction in the Muslim Community of Bandung
ABS-109	Imelda Junita, Fanny Kristine, Sherlywati, Rizki Muhamad Sidik	Potential Relationship between Students' Satisfaction on University Attributes and Positive or Negative Word-of-Mouth (WOM) and Its Correlation with their Recommendations
ABS-115	Pumama E.D. Tedjokoeseomo, Poppy Firtawentyna Nilasari, and Sriti Mayang Sari	Addressing The Independent Learning Curriculum (<i>Kurikulum Merdeka Belajar</i>) as a Form of Positive Disruption to Empower the Community
ABS-134	Robert O. Rajagukguk, Candra Sinuraya, Jane Savitri, Kristin Rahmani, Stephanie Andamani	Model of Student Identity Development by Chickering Theory

Day 1: Thursday, 1 July 2021

ROOM O at 14:00-15:30

Hybrid Approaches to Create Sustainability in Arts and Design	Authors	Title
ABS-8	Elizabeth Wianto, Monica Hartanti	The Role of Sustainable Packaging Design for West Java Local Products
ABS-16	Ariesa Pandanwangi- Dewi Isma Aryani- Belinda Sukapura Dewi- Ismet Zaenal Effendi- Wawan Suryana- MikiyEndro Santoso- Leonardo- Beni Sasmito	Spiritual Value: a Mythological Figure in Keraton Kanoman Cirebon
ABS-40	Christine Claudia Lukman, Krismanto Kusbiantoro, Irena Vanessa Gunawan, Lois Denissa, Eliati Djakaria, I Nyoman Natanael, Grace Caroline Sahertian, Wenny Anggraini Natalia	Multidiscipline Hybrid Approach in Art and Design Education to Support the Sustainability of Batik Cimahi
ABS-46	Greysia Susilo, S.E., S.Sn., M.Hum., Veila Venisia	Changes in Interior Design Programming at Residential after Covid-19 Pandemic
ABS-82	Lois Denissa	JFC Timeless Uses Hybrid Codes in Costumes for Reaching Sustainable Identity
ABS-87	Isabella Istihpraya Andreas, Shirley Nathania Suhanjoyo, Andi Aulia Hamzah, Ferlina Sugata, Nathalia Yunita Sugiharto, Nina Nurviana, Heddy Heryadi, and Seriwati Ginting	The Improvement of <i>Jamu</i> Appeal Using Creative Sales Strategy and Contemporary Design

Day 1: Thursday, 1 July 2021

ROOM P at 14:00-15:30

Hybrid Approaches to Create Sustainability in Arts and Design	Authors	Title
ABS-105	Ratnadewi, Agus Prijono, Ariesa Pandanwangi, and Andrew Sebastian Lehman	Preservation of the Tasikmalaya <i>Batik</i> Motif with Turtle Graphics
ABS-121	Ariesa Pandanwangi, Ratnadewi, Agus Prijono	Local Potential as the Source of <i>Batik</i> Design Using Turtle Graphics
ABS-151	Hayu Puspasari Saputri	Arumawa Ilé: New Normal and Sustainable Café Concept in Turirejo, Malang, East Java
ABS-152	Elizabeth Susanti Gunawan, Krismanto Kusbiantoro and Sugiri Kustedja	Transformation of a Chinese Cultural Heritage House in Bandung: Towards Sustainability
ABS-153	Kezia Clarissa Langi, Dian Widiawati, Setiawan Sabana, and Tusita Metadevi Jayamangalani Suprpto	Development of Weaving Craft Motif Designs as a Diversification Attempt for Nias Local Souvenir Products
ABS-154	Petrus Gogor Bangsa- Wening Udasmoro, and Christian Budiman	Self-taught Online Graphic Designer in Salaman, Magelang: Between Art Work, Decent Work and Vulnerable Work

Paper Presentation 3

Day 2: Friday, 2 July 2021

ROOM Q at 10:30-12:00



Law and Legal Systems for Sustainable Development	Authors	Title
ABS-9	Johannes Ibrahim Kosasi- Yohanes Hermanto Sirait	Urgency in Using Indonesia Language on Business Contracts and Potency of Investment Dispute (the Study of Supreme Court Decision Number 601 K/ Pdt/2015)
ABS-10	Tresnawati	Corporate Social and Environmental Responsibility Regulation and Implementation in Indonesia: Contribution for Sustainable Development or Legalized Robbery?
ABS-15	Rahel Octora , Fauzan Hanif M.	Financial Exploitation by Spouse, a Crime in Private Space (an Overview Based on Indonesian Legal System)
ABS-53	Ida Sumarsih	Study of Stock Ownership Nominee Agreement in Mining Business to People's Welfare that is Aligned for Sustainable Development Goals
ABS-70	Reggiannie Christy Natalia	Part Time Working Arrangement in Omnibus Law as Part of Sustainable Development and How it is Implemented in Developed Countries
ABS-108	Agus Setiawan, Harris Wiguna, Pan Lindawaty Suherman Sewu	Good Faith Principle and Legal Protection over Parties Related to Fiduciary Certificate in the Constitutional Court Decision in Indonesia after the Constitutional Court Decision Number 18/PUU-

Day 2: Friday, 2 July 2021

ROOM R at 10:30-12:00

Mental Health, Human Resources, Leadership and Well-being	Authors	Title
ABS-22	Missihana Riasnugrahani, Meta Dwijayanthi, Cindy Maria	Calling and Work Engagement in Priest: the Moderating Role of Social Support
ABS-23	Susanti Saragih, Meily Margaretha, Sherlywati	The Role of Calling and Job Crafting on the Promotion of Employee Engagement for Organizational Sustainability
ABS-28	Hasna Fauziati Zakkiyah, Stella, Farah Mutiasari Djalal, & Yosef Dedy Pradipto	What does Sejahtera mean to you? The interpretation of Sejahtera based on money-saving habit, happiness, and life satisfaction
ABS-58	Ida Ayu Nyoman Kartikawati, Lie Fun Fun , Lisa Imelia, Stephanie Andamani	Teacher Self Efficacy and Work Engagement: the Mediating Role of Psychological Well Being
ABS-63	Heliany Kiswantomo & Theofanny	Neuroticism and Subjective Well-Being in Faculty of Psychology Student
ABS-66	Leonardus Dewa Hardana, Rayini Dahesihsari	Internal Change Agents' Strategies to Deal with Boundary in Organizations in Indonesia

Day 2: Friday, 2 July 2021

ROOM S at 10:30-12:00

Mental Health, Human Resources, Leadership and Well-being	Authors	Title
ABS-091	Pingkan C. B. Rumondor , Elien Rosalie, Syifa Fauziah, Adriana Ginanjar, Claudia Chiarolanza, Ashley K. Randall	Perceived Individual, Partner, and Community Stressors Related to Covid-19 Quarantine in Indonesia: a Qualitative Study
ABS-094	Efnie, Indriane	Brain Respiration to Overcome Stress People Who Live with HIV (ODHIV)
ABS-101	Rhea Griselda- Olivia Gunawan- Laksmi Kusuma Wardani	The Interior of Medium-Scale Business Tiara Handicraft in Surabaya with Accessible Design Principle for Mentally and Physically Disabled Employees
ABS-102	Mutiara Ramadhita Roesad, Pingkan Cynthia Belinda Rumondor	Happily Married in the Absence of a Child: Marital Satisfaction of Voluntary and Involuntary Childless Individuals
ABS-136	Ka Yan, Priska Analya	Gratitude Journal, Expressive Writing and Mindfulness
ABS-138	Henilia Yulita, Vincencius Farrel Jonathan, Yustinus Yuniarto, Michael Christian, Eko Retno Indriyarti, Suryo Wibowo	The Role of Affective Commitment in Mediating the Relationship between Authentic Leadership and Organizational Learning at Chicken-Based Food Processing Company in Indonesia

Day 2: Friday, 2 July 2021

ROOM T at 10:30-12:00



Mental Health, Human Resources, Leadership and	Authors	Title
ABS-155 ABS-159	Ni Luh Ayu Vivekananda, Evi Ema Victoria Polii Erwin Permana, Widarto Rachbini, Wasi Widayadi, Rukun Santoso	Perma - a Multidimensional Framework of Well-Being in Indonesian The Dimensions of Transformational Leadership and Their Impacts on the Performance of Construction Business during Covid-19 Pandemic
Psychological, Education and Social Resources in the New Normal	Authors	Title
ABS-39	Ira Adelina, Vida Handayani, Maria Yuni Megarini	Systematic Literature Review on Mindset and the Benefits in Living New Normal Life
ABS-52	Tery Setiawan, Indah S.R. Kuntari, and Indah Puspitasari	Human Development Index in Indonesia: Are We in Line with SDGs and How Much Have We Grown?
ABS-54	Ellen Theresia, Marissa Chitra Sulastra and Serena Wijaya	Role of Parental Stress in Parenting Practice in Parents of Middle Childhood Children
ABS-76	Kriswanda Krishnapatria	Game Engagement amid Covid-19 Pandemic: Research on Students' Perception

Paper Presentation 4

Day 2: Friday, 2 July 2021

ROOM U at 13:00-14:30

Religion, Language and Humanity Issues in Sustainable Communities	Authors	Title
ABS-2	Anton Sutandio, Ph.D.	Indonesian Film Industry amidst the Covid-19 Pandemic: an Observation on Sustainability Efforts
ABS-27	Trisnowati Tanto, Sri Iriantini	Local Wisdom in Indomie and Demae Ichou Video Advertisements: a Multimodal Analysis
ABS-38	Mohamad Makincoiri, Mulyana	The Influences of Song Lyrics "Jagad Anyar Kang Dumadi" on the Productivity of Traditional Artists in Yogyakarta: a Critical Discourse Analysis
ABS-43	Selvia, M.Hum., Yohan Yusuf Arifin, M.His., Septeranie Sutandi, M.TCSOL	Representation of Political, Social, and Cultural Phenomena in Biopics of Chinese Indonesian Figures Using Historical Approach
ABS-67	Brian L. Djumaty: Nina Putri Hayam Dey	Food Sustainability in Local Wisdom Perspective of the Indigenous People Dayak Tomun Lamandau
ABS-73	Dexon Pasanibu, Bagus Takwin, Pim Marten	The Role of Religious Orientation and Ethical Ideologies in Environmental Concerns amongst Teachers and School Staff in East Java, Indonesia

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ROOM V at 13:00-14:30

Religion, Language and Humanity Issues in Sustainable Communities	Authors	Title
ABS-78	Vera Budi Lestari Sihotang	Tangos Therapy: Health Behavior as the Result of Normalizing Power in Medicating Symptoms of Malaria on the Community of Sebesi Island
ABS-84	Maryani	The Perceptions of Indonesian University Students on the Use of Extensive Reading in English Grammar Class
ABS-90	Xuc Lin, Mariana, Fu Ruomei	Raising Environmental Awareness Through Teaching Chinese as a Second Language at University
ABS-95	Hurriyah	Local Religions and Contested Civic Space in Indonesia: a Case Study of Sunda Wivitan community in Cigugur
ABS-103	Irsanti Widuri Asih, Heru Nugroho, Budiawan	New Constellations of Power and Resistance in the Platform Economy: Study of Gojek
ABS-104	Devi Riskianingrum- Henry Yogaswara	The Recalled of Disaster Memory on Sebesi Island: a Historical Perspective

Day 2: Friday, 2 July 2021

ROOM W at 13:00-14:30

Religion, Language and Humanity Issues in Sustainable Communities	Authors	Title
ABS-106 ABS-113	Olivia Gunawan- Rhea Griselda- Diana Thamrin Rizki Theodorus Johan, S.S, M.A, Sonny Angjaya, S.S, M.Hum.	The Influences of Chinese Culture on Historical Buildings in Surabaya Healing Through Acting: the Therapeutic Effect through Online Monologue Performance
ABS-132	Julianti Kasih1, Yenni Merlin Djajalaksana2 and Doro Edi3	Digital Interactions in Church Communities Attributable to COVID-19 Pandemic
ABS-156	Ulyna Dewi	Phonics Instruction for Young Learners in EFL Context: a Comparative Review
ABS-158	Muhammad Syafar, Helmy Faizi Bahrul Ulumi	Social Entrepreneurship Pesantren-Based to Support Rural Development in the Era of Covid-19 Pandemic (Case Study in District of Lebak, Banten Province, Indonesia)



Potential Relationship between Students' Satisfaction on University Attributes and Positive or Negative Word-of-Mouth (WOM) and Its Correlation with Their Recommendations

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Keyword: Attributes of Students' Satisfaction, Positive and Negative Word-of-Mouth, Students' Perception, Recommendation.

Abstract: Prospective students willing to further their education are expected to gather adequate information, compare and evaluate the benefits and disadvantages of various universities in a competitive academic atmosphere. One of the numerous ways of gathering information is through Word-of-Mouth (WOM) from family members, relatives and friends. Positive or negative WOM is generally formed from university students' experiences. The purpose of this study is to investigate specific attributes likely to enhance students' satisfaction regarding a university through Word-of-Mouth (WOM). This is a quantitative and qualitative research with data obtained from 57 students of a private university in Bandung, Indonesia, from a questionnaire and Focus Group Discussion (FGD). The results showed that students were most satisfied with the campus facilities and least satisfied with financial policy. Meanwhile, the results of correlation analysis indicated that 14 attributes had positive correlation significantly, 7 attributes had negative correlation significantly, and another 7 were not related. Furthermore, FGD was used to extract information on students' perceptions, opinions, attitudes towards the experiences gained at the university. The results showed a significant positive correlation between positive WOM and recommendations by students to others, with no negative WOM. Based on the study, implications for the university are discussed, and suggestion for future research is provided.

1 INTRODUCTION

Nowadays, the level of competition among universities in Indonesia, with dominance in those owned by private organizations, is significantly increasing. According to Digdowiseiso (2020) in 2018, Indonesia had 345 (88,24%) private universities and 46 (11,76%) public universities. High school graduates are now becoming more discerning in selecting universities to further their education due to the expenses associated with the process. However, by gaining admission into a university, students are able to choose an occupation that is suitable for their skills, which in turn provides financial stability and personal satisfaction.

Furthermore, it is one of the most important steps toward social and economic welfare in students' lives because it shapes their career. Therefore, universities have to attract prospective students while ensuring the old ones are properly retained. The universities have to ascertain their services satisfy students' expectations.

Generally, universities engaged in service industry, whereby the output cannot be evaluated before consumption. Expectations on services are not as apparent as those of tangible products (Özdemir et al., 2016). Students tend to gather information regarding the services provided by universities from their surroundings, such as family members, relatives, friends and social media. The informal

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comment or impression on the services by someone to others forms Word-of-Mouth (WOM) communication. This is defined as a strategy used to share opinions, feelings or experiences that influence others' evaluation and intentions. The messages are either positive or negative, depending on their individual opinions (Harahap, Hurriyati, Gaffar, Wibowo, et al., 2018). Therefore, WOM communication has become an important source in the service industry that is capable of positively or negatively impacting people's behaviour and decision-making effectively.

Universities usually use various promotional instruments to fascinate prospective students. Nevertheless, some of these instruments are unable to convince prospective students to register to the universities, particularly in the final decision-making phase. WOM communication plays a significant role in affecting students' decision-making process in selecting a university. In the Asia Pacific, especially in Indonesia, people mostly rely on third-party recommendation (Khraim, 2011). WOM communication is a powerful tool because it is usually trusted by information recipients (Chen, 2016). Furthermore, suggestions from family members, relatives and friends are much more effective than advertisements and publications. Normally, people tend to trust others' opinion because they feel it is proposed independently without force or encouragement (Khraim, 2011). During the search phase, prospective students gather information on universities from the internet or social media. However, in the selection phase, they prefer to obtain a tremendous part of off-the-record information from informal sources, such as from family members, relatives, friends, etc. Here, WOM communication plays an essential role in the prospective students' decision-making processes to choose a university (Lehmann, 2017).

There are positive and negative impacts associated with this means of gathering information. Positive WOM communication influence prospective students to select a university, while negative WOM creates antipathetic impacts. Negative WOM communication has the ability to destroy the university's reputation and discourage prospective students from registering.

Many previous studies have discussed the effects of WOM communication on students' preferences and how it influences their decision-making behaviours.

Özdemir et al. (2016) carried out a research to determine the effect of WOM communication on prospective university students in Turkey, especially

on emerging needs, collecting information and evaluating preferences. WOM communication also influenced students' decision-making behaviours, particularly after examining satisfaction, disappointment and complaints.

The study carried out by Harahap et al., Hurriyati, Gaffar, and Amanah (2018) stated that WOM communication positively influenced students' decision in selecting a university in Indonesia. This is in accordance with the research carried out by Lehman (2017), which stated that traditional WOM communication had a more substantial impact on prospective students' preferences than e-WOM. This is because e-WOM usually has a more substantial impact during the search phase than the selection.

Chloe (2019) found a positive relationship between the overall satisfaction of international students and social experiences in Malaysia through WOM communication.

Other studies also discussed predictor variables affecting WOM communication, such as service quality, students' satisfaction, reputations and brand image of a university.

Dora (2016) stated that the service quality of private universities is needed to provide students satisfaction. WOM communication is the implication of service quality mediated by students' satisfaction.

A study by Chen (2016) on students and graduates of universities in Taiwan found that brand image, satisfaction and loyalty of students significantly and positively influenced the sharing of pleasant experiences and referencing the university to others.

Ong (2017) proved that students' satisfaction had an influence on WOM and switching behaviour directly and significantly. This role as a mediating variable has also indirectly increased the effect of reputation on WOM and switching behaviour.

The other studies indicated that service quality increases students' satisfaction and encourage them to carry out WOM communication with others (Mestrovic, 2018; Handayanto, 2018).

Khraim (2011) examined students' willingness to deliver positive WOM communication in Jordan. The research found that satisfaction, experience and source, positively influenced WOM communication directly. Yet, incentives provided by the universities have not influenced the students to propagate positive WOM significantly. When students are satisfied, they tend to spread positive WOM and more likely to make a recommendation.

Therefore, it is obvious that WOM is powerful, more relevant and comprehensive because of its independent trait. WOM communication has distinctive credibility. In university, positive or

negative WOM is influenced by many factors, which positively or negatively impacts students' behaviour.

2 METHODS

The research questions are identified as follows:

- Which specific attributes of students' satisfaction influence positive or negative WOM communication regarding the university?
- How are students' experiences likely to enhance their satisfaction and their perceptions of those experiences?
- Is there any significant relationship between positive or negative WOM communication with students' recommendation on the university to others?

The research aims to verify the potential relationship between students' satisfaction with each university attribute and their positive and negative WOM communication and to verify the correlation between positive or negative WOM communication with students' recommendations. This research also aims to explore students' experiences and perceptions in accordance with their satisfaction.

The combination of both quantitative and qualitative research methods are used in this study to provide a better understanding of research problems.

For quantitative analysis, an online questionnaire with the Likert Scale was developed. In Part I, participants were asked to rate their satisfaction levels with 14 attributes of university experiences (1=very dissatisfied, 7=very satisfied), such as satisfaction with the lecturers, curriculum, academic advice, etc. In Part II, participants were asked to rate the levels they are likely to communicate positive or negative WOM to others on the attributes of university experiences (1=very unlikely, 7=very likely). In Part III, participants were asked to rate the levels of recommendation, such as recommending a university to family members, relatives and friends, as the first choice in the master program (1=very unlikely, 7=very likely). Correlation analysis was used to analyse the relationships between levels of students' satisfaction and positive WOM, levels of students' satisfaction and negative WOM, positive or negative WOM and recommendations. This online questionnaire was administered to 57 undergraduate students of a private university in Bandung, Indonesia. Furthermore, qualitative analysis with focus group discussion was conducted to complement the quantitative analysis.

The validity test was conducted to determine the validity of the statements and the fidelity of the measurement. Pearson correlation analysis was used to test the validity. Pearson correlation coefficient is a number between -1 and +1 that indicates the level of linear dependency between variables. Pearson correlation coefficients of > 0.35 are interpreted as strongly valid (Oktavia et al., 2018).

There are 14 attributes of university experiences to be analysed:

1. Lecturers
2. Curriculum
3. Academic Advising
4. Learning Process
5. Online Learning
6. Information Technology
7. Academic Policy
8. Financial Policy
9. Administration Staffs
10. Learning Facility
11. Campus Other Facility
12. Students' Activities
13. Social Interaction
14. Career Prospects

Tables 1-3 show the validity tests results for students' satisfaction on each attribute (S1-S14), Positive WOM on each attribute (PWOM) and Negative WOM on each attribute (NWOM).

Table 1: Validity Test for Students' Satisfaction Attributes.

Students' Satisfaction on Attributes	Coefficient	Results
S1	0.744	valid
S2	0.825	valid
S3	0.440	valid
S4	0.535	valid
S5	0.649	valid
S6	0.650	valid
S7	0.838	valid
S8	0.654	valid
S9	0.688	valid
S10	0.795	valid
S11	0.515	valid
S12	0.788	valid
S13	0.728	valid
S14	0.702	valid

Table 1 shows the result of validity test on students' satisfaction with each attribute. As all the Pearson correlation coefficient > 0.35 , all variables of students' satisfaction can be interpreted as valid.

Table 2: Validity Test for Positive WOM.

Positive WOM on Attributes	Coefficient	Results
PWOM1	0.648	valid
PWOM2	0.825	valid
PWOM3	0.717	valid
PWOM4	0.778	valid
PWOM5	0.793	valid
PWOM6	0.823	valid
PWOM7	0.797	valid
PWOM8	0.691	valid
PWOM9	0.770	valid
PWOM10	0.806	valid
PWOM11	0.612	valid
PWOM12	0.746	valid
PWOM13	0.803	valid
PWOM14	0.867	valid

Table 2 shows the result of validity test on positive WOM of each attribute. As all the Pearson correlation coefficient >0.35 , all variables of positive WOM can be interpreted as valid.

Table 3: Validity Test for Negative WOM.

Negative WOM on Attributes	Coefficient	Results
NWOM1	0.914	valid
NWOM2	0.935	valid
NWOM3	0.859	valid
NWOM4	0.921	valid
NWOM5	0.876	valid
NWOM6	0.909	valid
NWOM7	0.940	valid
NWOM8	0.842	valid
NWOM9	0.903	valid
NWOM10	0.896	valid
NWOM11	0.882	valid
NWOM12	0.920	valid
NWOM13	0.910	valid
NWOM14	0.891	valid

Table 3 shows the result of validity test on negative WOM of each attribute. As all the Pearson correlation coefficient >0.35 , all variables of negative WOM can be interpreted as valid.

Table 4: Validity Test for Recommendation.

Recommendation	Coefficient	Results
R1	0.901	valid
R2	0.899	valid
R3	0.958	valid
R4	0.822	valid

Table 4 shows the result of validity test on recommendation of each attribute. As all the Pearson correlation coefficient >0.35 , all variables of recommendation can be interpreted as valid.

The next step is the reliability test, which indicates the consistency of the instrument in measuring a certain phenomenon (Ursachi et al., 2015). Cronbach's Alpha coefficients of the variables were calculated to determine the reliability of the instrument.

Table 5: Reliability Test.

Variables	Cronbach's Alpha	Results
S	0.909	reliable
PWOM	0.943	reliable
NWOM	0.982	reliable
R	0.901	reliable

In Table 5., the results indicated that all Cronbach's Alpha values were very good and ranged from 0.901 to 0.982. According to a commonly accepted theorem, Cronbach's alpha of 0.60-0.70 represents a reasonable degree of reliability, and when it is above 0.80, it is in the very good degree category (Ursachi et al., 2015). This means that all the variables were consistent or relatively homogenous in the questionnaire.

3 RESULTS AND DISCUSSION

Table 6 shows the descriptive statistics for students' satisfaction with attributes.

Table 6: Descriptive Statistics for Students' Satisfaction.

Students' Satisfaction on Attributes	Mean	Standard Deviation
Lecturers	5.81	0.97
Curriculum	5.70	0.96
Academic Advising	6.14	1.20
Learning Process	5.91	1.01
Online Learning	5.25	1.39
Information Technology	5.84	1.15
Academic Policy	5.65	1.19
Financial Policy	4.93	1.43
Administration Staffs	5.72	1.13
Learning Facility	5.89	1.10
Campus Other Facility	6.21	0.92
Students' Activities	5.63	1.29
Social Interaction	5.89	1.18
Career Prospects	5.75	0.93

Table 6 shows the levels of students' satisfaction with various attributes of university experiences

(1=very dissatisfied to 7=very satisfied). The table shows that students were most satisfied with campus and other facilities and least satisfied with financial policy.

To examine students' perception of each attribute, they were asked to share their experiences on the attributes that satisfied or dissatisfied them.

One of the students shared the following experience on campus other facilities as follows *"Other campus facility, such as food court, it is very extraordinary with lots of menu variations. Banks and healthcare are also very helpful. For instance, I suddenly got sick when I was studying on campus. I immediately went to the campus health clinic and was treated. I did not have to pay for it."* Another student stated that the parking space is quite spacious. Students also offered suggestions to improve other campus facilities. For instance, they stated that *"Every classroom needs to be equipped with an air conditioner, due to the hot weather."* and *"The Wi-Fi network needs to be extended, for students to be able to access the internet from anywhere."*

Few students share dissatisfactions with financial policy, such as in the following excerpt: *"In this pandemic situation, many students are in financial distress. University needs to raise tuition discount rates because students learn from home."* and *"Students have to pay the total amount of tuition fee as stated in the Integrated Administration System without knowing the details of financial bills."*

In correlations analysis between the levels of students' satisfaction on attributes and positive WOM, all the p-values are smaller than the alpha used, which is 0.05. This means there is a significant correlation between the students' satisfaction on attributes and positive WOM, as shown in Table 7. The correlation analysis results showed that the 14 attributes of satisfaction have positive relationships with WOM. The signs of all coefficients were positive, which means the more satisfied students with the university attributes, the higher their possibility to communicate positive WOM. These attributes are lecturers, curriculum, academic advising, learning process, online learning, information technology, academic policy, financial policy, administration staffs, learning facility, campus, students' activity, social interaction, and career prospects.

Regarding the degree of the Pearson correlation, values of 0 and 1 indicate no correlation and perfect correlation, respectively. The closer the Pearson correlation values to +1, the stronger the relationship between the satisfaction on each attribute with positive WOM. Meanwhile, when the Pearson

correlation value is closer to 0, it indicates that the relationship between satisfaction on each attribute and positive WOM is getting weaker. A correlation value > 0.5 indicates a fairly strong relationship as a simple guideline, while a correlation value < 0.5 indicates a weak relationship.

Students' satisfaction with strong relationship and positive WOM are lecturers, curriculum, online learning, information technology, academic policy, financial policy, administration staff, learning facility, students' activities, social interaction, and career prospects. Meanwhile, attributes of students' satisfaction that have a weak relationship with positive WOM are academic advising, learning process, and campus other facilities.

Table 7: Correlations between Students' Satisfaction on Attributes and Potential Positive WOM Communication.

Attributes	r	p-value
Lecturers	.607	.000*
Curriculum	.687	.000*
Academic Advising	.431	.001*
Learning Process	.329	.012*
Online Learning	.539	.000*
Information Technology	.545	.000*
Academic Policy	.709	.000*
Financial Policy	.605	.000*
Administration Staffs	.569	.000*
Learning Facility	.688	.000*
Campus Other Facility	.373	.004*
Students' Activities	.641	.000*
Social Interaction	.615	.000*
Career Prospects	.639	.000*

The correlation analysis results also showed that the attribute most strongly related to positive WOM is academic policy, which is represented by the value of 0.709. Some students expressed their opinions on academic policy, as follows: *"So far, the academic policy is clearly informed, with adequately structured academic activities, hence I have no problem with academic policy."* Interestingly, students were most satisfied with campus other facilities, however, this attribute was related most weakly to positive WOM.

Meanwhile, the results of the correlation analysis between the level of students' satisfaction on attributes and negative WOM, as shown in Table 8, indicates that 7 of the 14 students' satisfaction on attributes significantly correlated with negative WOM. These attributes include lecturers, curriculum, learning process, academic policy, learning facility, students' activities and social interactions. The correlation results are all negative; therefore,

increasing students' satisfaction on attributes value decreases their possibility of communicating negative WOM. The closer the Pearson correlation values to -1, the stronger the relationship between the satisfaction on each attribute with negative WOM. Nevertheless, these 7 attributes of satisfaction have a weak relationship with negative WOM and significantly correlated with positive WOM (six attributes strongly correlated with positive WOM, including lecturers, curriculum, academic policy, learning facility, students' activity and social interaction). Therefore, students' dissatisfaction with these 6 attributes resulted in negative WOM weakly but students' satisfaction with these attributes resulted in positive WOM strongly.

The attribute that was related most strongly to negative WOM is lecturers. Few students shared their experiences about lecturers, such as *"I have both positive and negative impression on few lecturers. This is because some lecturers create a pleasant learning atmosphere. They arranged simulation and interactive discussion in the class for students to understand the learning course properly. Furthermore, students' efforts were also appreciated. However, some lecturers did not deliver the learning course properly."*

On the contrary, students' satisfaction on attributes including academic advising, online learning, information technology, financial policy, administration staffs, campus other facilities, and career prospects were only related to positive WOM. Hence, students' satisfaction with these attributes generated positive WOM but students' dissatisfaction with these attributes would not generate negative WOM.

Table 8: Correlations between Students' Satisfaction on Attributes and Potential Negative WOM Communication.

Attributes	r	p-value
Lecturers	-.405	.002*
Curriculum	-.397	.002*
Academic Advising	-.081	.549
Learning Process	-.292	.027*
Online Learning	-.130	.336
Information Technology	-.243	.068
Academic Policy	-.383	.003*
Financial Policy	-.230	.086
Administration Staffs	-.194	.147
Learning Facility	-.351	.007*
Campus Other Facility	-.210	.117
Students' Activities	-.374	.004*
Social Interaction	-.342	.009*
Career Prospects	-.149	.267

Table 9 shows the correlation between students' satisfaction on attributes and positive WOM with a sig-value of 0.000, which is smaller than the alpha used of 0.05. This means that there is a significant correlation between students' satisfaction on attributes and positive WOM. The relationship between students' satisfaction on attributes and positive WOM is also positive because the Pearson correlation value is 0.839. This means that the higher the levels of students' satisfaction on attributes, the greater the levels of possibility of positive WOM. Meanwhile, the sig value between students' satisfaction on attribute and negative WOM generally shows a sig-value of 0.003, which means there was a significant and negative correlation (Pearson correlation value of -0.391). Therefore, an increase in the level of students' satisfaction on attribute leads to a decrease in negative WOM from the students.

The correlation results between positive WOM and recommendation shows the sig-value of 0.000, smaller than alpha 0.05. This indicates a positive Pearson correlation value of 0.669, which means the higher the positive WOM, the greater the possibility of recommendations delivered by students to others. The correlation result between the negative WOM with recommendations shows the sig-value of 0.156, which is greater than alpha 0.05, which means that it does not show a significant correlation (Pearson correlation value of -0.190).

Table 9: Correlations between Variables.

	S.	PWOM	NWOM	R.
S	Pearson Correlation	1	.839**	-.391**
	Sig. (2-tailed)		.000	.003
PWOM	N	57	57	57
	Pearson Correlation	.839**	1	-.283*
NWOM	Sig. (2-tailed)	.000	.033	.000
	N	57	57	57
R	Pearson Correlation	-.391**	-.283*	1
	Sig. (2-tailed)	.003	.033	.156
	N	57	57	57
	Pearson Correlation	.732**	.669**	-.190
	Sig. (2-tailed)	.000	.000	.156
	N	57	57	57

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

4 CONCLUSIONS

In conclusion, this study showed a significant positive and negative correlation between students'

satisfaction on university attributes with WOM. It means the more satisfied students with the university attributes, the higher their possibility to communicate positive WOM. The correlation analysis results showed that the 14 attributes of satisfaction have positive relationships with WOM. Furthermore, 11 of these attributes, namely lecturers, curriculum, online learning, information technology, academic policy, financial policy, administration staffs, learning facility, students' activities, social interaction, and career prospect, have strong relationships with positive WOM. Meanwhile, 3 attributes, namely academic advising, learning process, and campus other facilities, have weak relationships with positive WOM. Seven attributes of satisfaction, including lecturers, curriculum, learning process, academic policy, learning facility, student activities and social interactions, also have a weak relationship with negative WOM. These results are in accordance with the research carried out by Palmer (2011), which stated that some university attributes were associated significantly with positive WOM but were not associated significantly with negative WOM, while some university attributes were associated significantly with positive and negative WOM.

The policymaker of the university does not have to improve other facilities because students are most satisfied with this attribute. However, the university needs to make a reasonable academic policy because it was most strongly related to positive WOM. The policymaker also needs to enhance the attribute of the lecturer and make sure to improve performance on this attribute because it tends to reduce negative WOM.

Future studies need to be carried out on additional attributes, such as campus scholarship, implementation of government policy on higher education, or WOM communication implications on brand image, reputation, etc.

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