

# SOI 2025 10th Anniversary Conference

*Open Innovation: Technology, Market and Complexity*

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

\*July 15(Tue.)~18(Fri.), 2025, Main Conference Days; July 14(Mon.), Open Innovation Academy 2025 Summer School

([www.openinnovationmc.org](http://www.openinnovationmc.org))

Society of Open Innovation: Technology, Market, and Complexity (SOI) 2025 10th Anniversary Conference

The poster for the SOI 2025 10th Anniversary Conference features the logos of the Society of Open Innovation and DGIST at the top. The main title "SOI 2025 10th Anniversary Conference" is prominently displayed in the center, with the dates "July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea" and the website "www.openinnovationmc.org" below it. The conference is sponsored by DGIST, with the theme "Open Innovation: Technology, Market and Complexity". Key dates for registration and submission are listed: late registration until June 31, 2025 (€300 for professors, €400 for students and advantage regions), full paper submission until June 30, 2025, and Summer School Application until July 13, 2025 (free for SOI 2025 participants, €200 for non-SOI 2025 persons). The poster also lists keynote speakers from various institutions and a detailed schedule of special sessions, including topics like "AI & Open Innovation", "Open Innovation in the Age of AI", and "Open Innovation in the Age of Digital Transformation".

Full paper proceeding will only be available for viewing offline. For any inquiry, please contact [openinnovationmc@dgist.ac.kr](mailto:openinnovationmc@dgist.ac.kr).

- **Organized by Society of Open Innovation: Technology, Market, and Complexity(SOI)**

- **Hosted by DGIST**



- **July 15(Tue.)~18(Fri.), 2025, Main Conference Days, DGIST, Daegu, South Korea \* July 14(Mon.), Open Innovation Academy 2025 Summer School**



PROGRAMME OF

## **SOI 2025 10th Anniversary Conference**

*Open Innovation: Technology, Market and Complexity*

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

\*July 15(Tue.)~18(Fri.), 2025, Main Conference Days; July 14(Mon.), Open Innovation Academy 2025 Summer School

[www.openinnovationtmc.org](http://www.openinnovationtmc.org)

Society of Open Innovation: Technology, Market, and Complexity (SOI) 2025 10th Anniversary Conference



## TABLE OF CONTENTS

▶ <b>Greetings</b>	
• Welcoming & Congratulatory Speech by the President of DGIST - Prof. Kunwoo Lee .....	1
• Welcoming Speech by the Executive President of SOI - Prof. Sandon Lee.....	3
• Welcoming Speech by the Organizing President of SOI& 2025 Hosting Chair - Prof. Dr. JinHyo Joseph Yun.....	5
▶ <b>Program Time Schedule &amp; Contents</b> .....	26-87
▶ <b>Abstract</b> .....	89
• <b>Keynote Speech</b> .....	89
◆ Open Science and its Enemies: Towards a sustainable and inclusive development in the 21st Century <b>by Venni V Krishna</b> .....	91
◆ Contribution Systems: A New framework for open innovation <b>by Jason Potts</b> .....	92
◆ Green Governance and Evaluation <b>by Weian Li</b> .....	93
◆ Post Capitalism under Digital Transformation: The Way to Entrepreneurial State with Open Innovation Dynamics <b>by JinHyo Joseph Yun</b> .....	94
◆ Artificial Intelligence and the organizer of the future: individuals, groups, ecosystems <b>by Vincenzo Corvello</b> .....	95
◆ Climate Justice: Historical Accountability vs. International Paretianism <b>by Biung-Ghi Ju</b> .....	96



◆ Navigating Artificial Intelligence Adoption in Local Government <b>by Tan Yigitcanlar</b>	97
◆ User Innovation for the future <b>by Eric von Hippel</b>	98
◆ Finding Your Research Self: A letter to young management and economics scholars <b>by Fred Y. Phillips</b>	99
• <b>July 15(Tuesday)</b>	<b>101</b>
■ <b>July 15(Tuesday) 17:00~18:30 Room 202</b>	
◆ The Influence of Carbon Perception on Sustainable Behaviors: A Multigroup Moderation Analysis of Openness to Technology Adoption	106
◆ Dynamic Platform: emergent and deliberate strategies	107
◆ Artificial Intelligence Age and Spiritual Revolution	108
◆ A study of navigating knowledge search and appropriability risk in open-source platforms	109
◆ Circular economy innovation in SMEs: A case study	110
■ <b>July 15(Tuesday) 17:00~18:30 Room 203</b>	
◆ Advancing Public Administration through Information Governance: An Academic Study in the AI Era	111
◆ Decentralized Decision-Making in the Shadow of "Hierarchy": How Informal Hierarchy Differences Induce Deviant Voting Behavior	112
◆ Application of Sustainable Infrastructure Criteria at Publicly Owned Infrastructure Management Companies	113

◆ Comparative Study of AI National Strategies in Major Countries: Focusing on the UK, France, China, and South Korea.....114

◆ Exploring Openness within European Universities Alliances: Challenges and Opportunities of Open Innovation and Open Science.....115

■ **July 15(Tuesday) 17:00~18:30 Room 204**

◆ Social Economy and Social Open Innovation in Different Contexts; Findings from Cities in South Korea, Italy, and Poland.....116

◆ Exploring the influence of leaders and peers on job performance.....117

◆ Development of a theoretical framework to Evaluate and Rank the Innovation Efficiency of OECD countries.....118

◆ The implementation of open innovation in energy recovery towards sustainable development.....119

◆ The Co-evolution Strategy of Government, industrial Internet Platform and SMEs in Regional industrial Internet Ecosystem: The Role of Government Subsidies and Value Co-creation.....120

■ **July 15(Tuesday) 17:00~18:30 Room 301**

◆ Transformation of Standardization Value from Measurement Reference to Best Practice Benchmark.....121

◆ Intuitional Characteristics and Roll-Call Voting in EU AI Act.....122

◆ A Data-Driven Approach to Copper Price Forecasting: Integrating Macroeconomic Indicators with Time Series and Machine Learning Models.....123

◆ Comparative Study of Artificial Intelligence Regulations: Focusing on the EU and US124

◆ Increasing the importance of biofuels in the global energy mix as a determinant of innovation and changes in research methodology.....125

• **July 16(Wednesday)**.....127

■ **July 16(Wednesday) 09:00~10:30 Room 202**

- ◆ The Transformative Impact of Artificial Intelligence on Business Model Innovation.....139
- ◆ How leading manufacturing enterprises can build innovation ecosystems to achieve sustainable development.....140
- ◆ Mapping the Landscape of University Business Models.....141
- ◆ Does collaboration in cyberspace promote entrepreneurial intentions? Empirical evidence of digital entrepreneurship among Korean university students in the AI era.....142
- ◆ The Successor's Journey: How Business Acumen and Resource Orchestration Drives Innovation, Logistics Integration, and Family Firm Performance.....143

■ **July 16(Wednesday) 09:00~10:30 Room 203**

- ◆ Network expansion and the degree of technological innovation breakthroughs: The moderating role of new partner distance.....144
- ◆ Core Assessment of CUBIC Framework: Effect of CDO's Strategic Orientation on Innovative Organizational Culture.....145
- ◆ Towards Sustainability of Government Services in the era of Industry 5 Technologies: The Opportunities, Challenges and Key Drivers - A Systematic Review.....146
- ◆ Professional Coping among Street-Level Bureaucrats in Vietnam: Explanation from Job Characteristics and Job Outcomes.....147
- ◆ Mapping AI Diffusion and Stakeholder Networks in Korean Manufacturing (Through Topic Modeling and OM-Centric Analysis) .....148

■ **July 16(Wednesday) 09:00~10:30 Room 204**

- ◆ Redesigning Pet Registration Systems for Pet Welfare Enhancement: A UX and Service Design Approach to Responsibility and Behavioral Engagement.....149

◆ A Study on the B2G Model for Public Application of Room Escape Game-Based (EER) Sex Education: A Proposal of the SEER Framework..... 150

◆ Proposed mentoring program model to support North Korean women's settlement... 151

◆ Strategic Private Equity Investment in Open Innovation Ventures and SMEs: Key Success Factors..... 152

◆ Leveraging Open Innovation to Enhance ESG Solutions in Small and Medium Enterprises..... 153

■ **July 16(Wednesday) 09:00~10:30 Room 301**

◆ Determinants of AI adoption across sectors and technological intensity..... 154

◆ The adoption and impact of open innovation practices on the performance of firms: A case study of the Indian biotech industry..... 155

◆ Impact of Global Convergence Trends on R&D Investment in South Korea: A Comparative Analysis by Research Field..... 156

◆ Analyzing the Outcomes of Fostering Regional Women in STEM in context of Open Innovation ..... 157

◆ Legal framework for crypto-currencies and digital assets in Vietnam..... 158

■ **July 16(Wednesday) 14:30~16:00 Room 202**

◆ The Impact of Social Startup Networks on Economic and Social Performance ..... 159

◆ Strategic Sourcing for Critical Needs: Balancing Costs, Risks and Sustainability in Operations..... 160

◆ Exploring the Impact of Social Media on Sustainability Narratives: Quantitative Content Analysis of Facebook Pages of Creative..... 161

- ◆ How AI helps team autonomy? .....162
- ◆ Succession in Driving Innovation within Family-Owned Businesses in Japan ..... 163

■ **July 16(Wednesday) 14:30~16:00 Room 203**

- ◆ Drivers of Innovative Work Behavior in Public Organizations: A CatBoost–SHAP Approach..... 164
- ◆ Fractal Features of Knowledge Networks.....165
- ◆ The strategic use of digital transformation capability: A meta-analytic approach.....166
- ◆ How Earthquake Shocks Affect Executives' Excess Perk Consumption: A Quasi-Natural Experiment from the Wenchuan Earthquake..... 167
- ◆ Governance Roles in Open Innovation Ecosystems: Exploring Challenges, Opportunities, and Emerging Concepts..... 168

■ **July 16(Wednesday) 14:30~16:00 Room 204**

- ◆ How does the campus architecture design motivate open innovation?-Comparative analysis among Apple park campus, Dyson Malmesbury campus, and DGIST campuses.....169
- ◆ Understanding the market-based capability of Korean firms based on dynamic capability and resource-advantage theory.....170
- ◆ Dynamics Between the Enablers of Fintech Adoption: A Case of India.....171
- ◆ Public Sentiments Factors Affecting the Continuance Intention of Fintech Lending in Indonesia.....172
- ◆ Improving Climate Outcomes through Disclosure: The Effect of the CSRD on Spanish Firms.....173

■ **July 16(Wednesday) 14:30~16:00 Room 301**

- ◆ Dynamic Analysis of R&D Productivity among European Countries.....174
- ◆ Adoption and Purchase Intentions of AR Smart Glasses Among Gen Z: Analyzing Key Influences and Drivers.....175
- ◆ Innovation Ecosystem of Entrepreneurial Hospital.....176
- ◆ The co-creation of sustainability transition in air mobility.....177
- ◆ Transformation of the Engineering Study Process: Perspectives of Academic Staff and Students.....178

■ **July 16(Wednesday) 16:30~18:00 Room 202**

- ◆ Policy Development Innovation with Gamification in Society 5.0.....179
- ◆ Dynamic Capabilities and Export Performance: A Pathway to Business Innovation...180
- ◆ A study of gender differences in AI adoption among Indian Engineering students: Implications for actionable initiatives at institutes.....181
- ◆ Innovating Smart City Solutions through Gamification in Society 5.0.....182
- ◆ Exploring Intellectual Structure, Network and Research Themes in Open Innovation...183
- ◆ LNG Supply Chain Optimization: Open Innovation in Transportation and Energy in Vietnam.....184

■ **July 16(Wednesday) 16:30~18:00 Room 203**

- ◆ How do CEO Characteristics Impact Corporate Participation in Triple Income Distribution under the Background of Common Prosperity? ——Machine learning based Approach.....185

◆ AI-Driven Outpatient Management Using Smart KIOSK Systems, AR-IoT Vital Monitoring, Predictive Diagnosis, and Resource Optimization.....	186
◆ The Effect of Scientific and Technology Personnel's Self-Efficacy on Innovation Behavior Mediated by Learning Agility.....	187
◆ Converging Robotics and Design: Leveraging Open Innovation for Enhanced Human-Machine Collaboration.....	188
◆ How Do Customer-Robot Interactions Shape Employees' Emotional Labor? Evidence from the Hospitality Industry in China.....	189
◆ Carbon Footprint as a Welding Challenge and Innovation for Environmental Protection.....	190

■ **July 16(Wednesday) 16:30~18:00 Room 204**

◆ Research on the relationship between species richness and abiotic environmental factors in wetlands .....	191
◆ Integrating ESG into organizational strategies: roles of resilience and adaptive capabilities.....	192
◆ AI Coding Assistants in Computer Science Education: Adoption, Self-Efficacy, and Academic Open Innovation Practices.....	193
◆ A Comparative Study on Entrepreneurial Perception between Korea and Nepal Using the Korea Entrepreneurship Index (KEI) .....	194
◆ CREATING INTEGRATED VALUE THROUGH THE CIRCULAR ECONOMY: IMPLICATIONS FOR BUSINESS AND SOCIETY.....	195
◆ ESG Controversies and Sustainability Reporting: An Empirical Study of Listed Companies.....	196

■ **July 16(Wednesday) 16:30~18:00 Room 301**

◆ The impact of middle management on inter-organizational public R&D team.....	197
--	-----

◆ SUSTAINABLE TOURISM DEVELOPMENT: A CASE STUDY IN MUI NE FISHING VILLAGE, PHAN THIET CITY, VIETNAM.....	198
◆ A Qualitative Study of Circular Business Models: Insights from Small and Medium-Sized Enterprises (SMEs) .....	199
◆ Fostering Open Innovation for Societal Safety through Exploiting Digital Transformation in Market Surveillance.....	200
◆ Open Innovation and intellectual capital in the fashion and textile industry.....	201
◆ How does financial risk attitude influence small and medium enterprises' digitalization and sustainability investment decisions? .....	202
• <b>July 17(Thursday).....</b>	<b>203</b>
■ <b>July 17(Thursday) 11:00~12:30 Room 202</b>	
◆ CEO Perspectives on ESG in Korean SMEs: A Q-Methodology Approach.....	212
◆ Exploring the Non-Linear Relationship Between Open Innovation and ESG-Focused Resilience in Complex Innovation Ecosystems.....	213
◆ Circular Economy and Innovative ESG in Global Fashion Industry.....	214
◆ Comparative Study on Empty Houses Management Policies Based on MSSD - Focusing on the UK, France, Japan, and Korea.....	215
◆ Human Resource Development in IT industry in Sri Lanka - Its challenge and practices-.....	216
■ <b>July 17(Thursday) 11:00~12:30 Room 203</b>	
◆ Human vs. AI: Exploring the Impact of AI-Personalization on Destination Image, Competitiveness and Visitor's Intention in Regenerative Tourism.....	217



◆ The Impact of Digital Transformation on Environmental and Product Innovation: The Moderating Roles of Innovation Types.....	218
◆ Harnessing Wisdom of Crowds for Idea Selection Accuracy: Insights from Scoring and Ranking Rules.....	219
◆ From Environment to Impact: How AI Capacity Drives Organizational Creativity, Decision-Making, and Performance.....	220
◆ Synergizing Corporate Foresight, Eco-Innovation, and Learning for Sustainable Infrastructure and Agile Green Supply Chains.....	221

■ **July 17(Thursday) 11:00~12:30 Room 204**

◆ Multidimensional Entrepreneur Typology Analysis of Legacy Company CEOs in Korea's Southeast Region Using BERTopic: An Integrated Personality-Context-Behavior Approach.....	222
◆ A Blockchain-Enabled Taxation Framework for Implementing the Polluter-pays Principle in Transportation.....	223
◆ Triangular Relationship Among Employer Branding, Organizational Reputation, and Job Pursuit Intention: Focus on University Students and Multinational Corporations.....	224
◆ Smart Firefighting Technology Patent-Based Analysis.....	225
◆ Antecedents and consequences of outside-in marketing capabilities with the mediating role of marketing innovations and moderating role of ambidexterity.....	226

■ **July 17(Thursday) 11:00~12:30 Room 301**

◆ Analyzing the Impact of Open Innovation Factors on the Performance of Firms in Korean Bio Clusters: A Study on Key Characteristics and Outcomes.....	227
◆ Evolution of platform innovation ecosystems under the dynamic capability perspective: a case study based on the Haier.....	228
◆ Classifying Open Innovation Networks: 3D Perspectives and Productivity Insights.....	229

◆ Open Innovation in Educational Settings: A Systematic Literature Review and Bibliometric Analysis.....230

◆ WHY THE POLICY COULD NOT ABSORBT BY SMES? – A VIEW THROUGH RECIPROCITY 'LENS' IN A CASE IN VIETNAM.....231

■ **July 17(Thursday) 14:00~15:30 Room 202**

◆ Complex Adaptive Systems and Circular Economy Business Model Resilience in Sustainable Innovation Ecosystems.....232

◆ Unlocking new growth opportunities for medical device startups after IPO.....233

◆ Adoption Behavior of SMEs Entrepreneurs Towards Carbon Footprint Labels on Organic Food Products: A Business Model Innovation for Sustainability.....234

◆ Flexible Work Arrangements and Employee Engagement in E-commerce – a literature review.....235

◆ Assessment of the Impact of Social Media Marketing on Brand Engagement and Sales Performance of Online Service Companies in Sri Lanka.....236

■ **July 17(Thursday) 14:00~15:30 Room 203**

◆ Aligning Organizational Culture with ESG Goals in Korean Small and Medium Enterprises.....237

◆ A Model for Promoting Local Entrepreneurship centered on Regional Universities.....238

◆ Jade can be polished by stones from other hills?Promotion strategy selection for video platforms in the age of social media.....239

◆ Enhancing Organizational Performance: The Role of Government Support, AI Capability, and Strategic Foresight.....240

◆ Enabling Business Model Innovation through Dynamic Capabilities: The Role of Corporate Foresight, Big Data, and Government Support in an Emerging Economy.....241

■ **July 17(Thursday) 14:00~15:30 Room 204**

◆ Open Innovation in Micromobility – From Crowdsourcing to Co-Creating Sustainable Solutions.....242

◆ Corporate-Startup Collaboration Research Trends Analysis Using BERTopic: Identifying Research Topic Structure and Development Patterns through Time-Series Topic Modeling.....243

◆ GLASS CEILING, JOB STRAIN AND INTENTION TO QUIT AMONG FEMALE EMPLOYEES IN VIETNAM'S PUBLIC SECTOR.....244

◆ Open Innovation for Green Transition in Energy Sector: A Literature Review.....245

◆ Public Private Partnerships. Case of Baltics.....246

■ **July 17(Thursday) 14:00~15:30 Room 301**

◆ Process Analysis of Startup Support Programs in Korea Using Process Mining: A Focus on Growth Stages of Startup.....247

◆ On Classification of Factors for Analysis of Conflict Triggers and Prevention Mechanisms in Organizations.....248

◆ Drivers of Creative Deviance: From Perspective of Open Innovation and Entrepreneurship.....249

◆ Exploring the growth of disruptive technology in the digital age from the perspective of patents: The evolution in the field of autonomous vehicle.....250

◆ Classification of Sustainable Innovation in Corporate Venturing .....251

• **July 18(Friday).....253**

■ **July 18(Friday) 09:00~10:30 Room 202**

◆ Decision-making Styles of Top Management Teams and its Impact on Financial Outcomes of Enterprises: Insights from Latvia .....259

◆ Fostering Innovation in the News Media Industry: Exploring Creative Coding Workshops as Catalysts for Creativity and Skill Transfer.....	260
◆ Navigating Complexities in Virtual Consumer Behavior: Uses and Gratifications Theory-Driven Innovations for Sustainable Business Practices.....	261
◆ A Study on the Automatic Patent Valuation by using Large Language Models .....	262
◆ E-Governance in Transition - Lessons from Latvia for a Digitally Empowered Future...	263
◆ Open innovation of firms in the semiconductor value chain; Global patent analyses and case studies of firms in South Korea, Japan, and Germany.....	264

■ **July 18(Friday) 09:00~10:30 Room 203**

◆ Exploring the relationship between quality of employment and company performance	265
◆ Artificial Intelligence and Firm Idiosyncratic Risk: The Role of Ethical Governance.....	266
◆ Adoption of Ideas from Innovation Contests – Evidence from a Korean Financial Institution.....	267
◆ Factors Affecting Corporate Efficiency in Korean Biopharmaceutical Industry - Focusing on Open Innovation types by Business Model.....	268
◆ An Overview Analysis of the Patent Trends of Foreign Patentees Based on Registered Patents in Korea .....	269
◆ Individual AI Mechanism Design Based on the Open Innovation Dynamics.....	270

■ **July 18(Friday) 09:00~10:30 Room 204**

◆ Transforming Consumer Behavior: Utilizing Uses and Gratifications Theory to Promote Sustainable Economic Growth .....	271
---	-----

◆ Explaining the foundation and change of product meaning by the social cognitive dynamic theory in a product market: Applying in the bottled water and water purifier product market in Korea.....272

◆ The Impact of Technological Regimes on Firm's Innovation Activities.....273

◆ The Effects of External Cooperation on Innovation Performance of Information Technology Firms in South Korea.....274

◆ Capitalization of Contemporary Art: The Reverse Structure of Open Innovation, and the Price Paradox .....275

■ **July 18(Friday) 09:00~10:30 Room 301**

◆ Disruptive Technology Identification Based on the Open Innovation Network: A Case of Virtual Travel.....276

◆ Analysis of effects before and after enactment of the National R&D Innovation Act in South Korea.....277

◆ Analysis of open innovation performance and influencing factors of the Korean biopharmaceutical industry in bioclusters.....278

◆ Entrepreneurship in Hospital, Emerge of Doctorpreneur.....279

◆ Key Factors Impacting Cyber Resilience in SMEs: The Role of Open Innovation in Building Cybersecurity Awareness and Collaborative Defense Strategies.....280

◆ The Role of Business Models in Bridging Technology and Market: Mathematical Modeling and Its Application to Artificial Intelligence.....281

## **Welcoming & Congratulatory Speech by the President of DGIST**

**-Prof. Kunwoo Lee**

### **Dear SOI Members!**

Distinguished members of the Society of Open Innovation, honorable professors, and esteemed guests,

It is a great pleasure to extend my heartfelt congratulations on the successful organization of the 2025 Society of Open Innovation: Technology, Market, and Complexity (SOI) Conference. I wish all participants a productive, inspiring, and rewarding experience during this important event.

The year 2025 holds special significance as we celebrate the 10th anniversary of the SOI Conference. On this meaningful occasion, I would like to express my deep gratitude and respect to all the scholars who have stood alongside Professor Dr. JinHyo Joseph Yun in building and growing SOI into the thriving academic community it is today.

The remarkable achievements and success of SOI over the past decade are the result of the dedication, passion, and vision of each and every one of you. I sincerely thank and commend all those who have contributed to the development and advancement of this important scholarly society.

It is our great honor to welcome you to the Daegu Gyeongbuk Institute of Science and Technology (DGIST).

Established in 2004, DGIST was founded with the mission of cultivating highly skilled professionals in science and technology, and contributing to regional and national innovation through cutting-edge research in knowledge-based industries. Originally launched as a research institute, DGIST evolved into a full academic institution following the enactment of the DGIST Act, welcoming its first graduate students in 2011 and its first undergraduate students in 2014.

In just over two decades—and a decade as an academic institution—DGIST has grown into one of the world’s fastest-rising universities, gaining global recognition through persistent innovation and effort. These achievements have been made possible by the

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

commitment and talent of our faculty, staff, and students, as well as the steadfast support of the government and the local community.

DGIST led the nation with the highest early admission competition rate (23.3:1) among science and engineering universities in South Korea for 2025. In addition, we received excellent evaluations in the 2024 National R&D Performance Review, ranked 3rd in Korea and 33rd globally in the Times Higher Education (THE) Young University Rankings 2024, and achieved 2nd in Korea and 110th globally in THE Interdisciplinary Science Rankings 2025.

As a university striving for global excellence, we are committed to enhancing diversity among our faculty, students, and researchers. To that end, we actively attract talented individuals from around the world through initiatives such as our visiting scholar program, student exchange program, global postdoctoral program, and by hosting international academic conferences like SOI 2025 and the 2025 WEEF-GEDC Conference.

This year, we proudly launched a new “Global Postdoctoral Program” to welcome outstanding researchers from leading universities worldwide. Furthermore, we are honored to host the 10th SOI Conference here at DGIST from July 14 to 18, 2025, as well as the 2025 WEEF-GEDC Conference in September.

Looking ahead, I hope the collaboration between SOI and DGIST will continue to grow, paving the way toward becoming a world-class academic society in the fields of open innovation and business model design engineering.

Once again, I extend my sincere congratulations to all members of SOI on the 10th Anniversary Conference. We look forward to welcoming you to DGIST, where we might come together under the theme: **“Open Innovation: Technology, Market, and Complexity.”**

Thank you.

July 16th, 2025



**Prof. Kunwoo Lee**

The 5th President of DGIST

# **Welcoming Speech by the Executive President of SOI**

**- Prof. Sandon Lee**

Dear distinguished guests, esteemed colleagues, and dear friends

It is my immense pleasure and privilege to welcome you all to the SOI 2025 Conference here in the beautiful campus of DGIST, RoK. As the Executive President, I am delighted to see such a distinguished gathering of minds, united by our common passion for innovation, collaboration, and progress in our field and it is wonderful to see so many familiar faces as well as new ones joining us this year.

It is with profound joy and gratitude that I welcome you all to this very special occasion—the 10th Anniversary Celebration of the Society of open innovation, SOI.

In a world that is changing faster than ever, no single organization, institution, or individual can solve complex challenges alone. The power of open innovation lies in the collective—the willingness to listen, to share, and to build together. And that is exactly what SOI has stood for these ten years.

Over the past ten years, SOI has grown from a modest initiative into a vibrant and respected organization, known for its commitment to excellence, its inclusive community, and its forward-looking spirit. Together, we have overcome challenges, embraced new opportunities, and made contributions that have resonated far beyond our original hopes.

Firstly, I would like to extend my heartfelt gratitude to all our participants, speakers, and sponsors for their unwavering support and dedication. Your commitment to excellence and your passion for advancing our industry are what make SOI 2025 possible.

Today, as we look back on the milestones we've achieved, we also look ahead—with ambition and a renewed sense of purpose. The next chapter of SOI begins now, and it is one that will demand even greater collaboration, creativity, and courage.

This anniversary is not just a milestone—it is a moment of reflection and renewal. As we celebrate our history, we also look ahead to the next decade with confidence and determination. What will the next ten years hold? That depends on us—on our vision, our creativity, and our continued willingness to lead with integrity and purpose.

To all of you who have walked with us on this journey—whether from the very beginning or newly joining us—thank you. Your belief in SOI's mission and your continued engagement are what sustain and inspire us.

Let us celebrate this special anniversary with pride—and look forward to the next decade of meaningful impact, together.



## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

Happy 10th anniversary to us all. And welcome to this celebration.



**Prof. Sangdon Lee**

Dept of Environmental Sciences & Engineering,  
College of Engineering, Ewha Womans University, Seoul, Korea  
Executive President, SOI 2025

## Welcoming Speech by the Organizing President of SOI & 2025 Hosting Chair

-Prof. Dr. JinHyo Joseph Yun

**Distinguished Guests, Esteemed Colleagues, and Dear Friends,**

It is with profound honor and heartfelt enthusiasm that I welcome you to the 10th Annual Conference of the Society of Open Innovation: Technology, Market, and Complexity (SOI 2025), hosted at the Daegu Gyeongbuk Institute of Science and Technology (DGIST) in Daegu, South Korea, from July 14 to 18, 2025.

This milestone conference marks a decade of scholarly exchange and collaborative inquiry into the intricate interplay between open innovation, technological advancement, market dynamics, and systemic complexity. Our gathering today is a testament to the enduring commitment of the SOI community to explore and address the multifaceted challenges and opportunities that define our global landscape.

Reflecting upon our journey, we recall the inaugural SOI conference held in 2016 at St. Joseph's University in the United States. Since then, our community has convened annually across various esteemed institutions worldwide:

- SOI 2015– Daegu Gyeongbuk Institute of Science and Technology, South Korea
- SOI 2016 – San Jose State University, USA
- SOI 2017 – Riga Technical University, Latvia
- SOI 2018 – University of Naples Federico II, Italy
- SOI 2019 – Meijo University, Japan
- SOI 2020 – Oklahoma State University, USA (Online)
- SOI 2021 – Virtual Conference (Pandemic)
- SOI 2022 – Swansea University, UK
- SOI 2023 – University of Naples Federico II, Italy
- SOI 2024 – Riga Technical University, Latvia

This year, we are privileged to host this distinguished assembly at DGIST, a hub of innovation and research excellence in South Korea. Our theme, *“Open Innovation, Technology, Market, and Complexity,”* builds upon the foundations laid in DGIST 2015, San Jose State University 2016, Riga Technological University 2017, Naples Federico 2 University 2018, Meijo University 2019, Oklahoma State University 2020, Zoom Conference 2021, Swansea University 2022, Naples Federico 2 University 2023, Riga Technological University 2024, where we delved into the "Open Innovation Dynamics; The Way to Conquer the Growth Limits of Capitalism." In 2025, we continue our exploration of how open innovation can navigate and shape the evolving nexus of technology, market forces, and systemic complexity.

As the organizing president and individual scholar member of SOI, I am honored to present five of my co-authored papers featured at this year's conference. I expect that each will contribute to the discourse on open innovation across diverse domains:

1. **"How Does Campus Architecture Design Motivate Open Innovation?"**  
A comparative analysis of the architectural designs of Apple Park, Dyson Malmesbury, and DGIST campuses, examining how physical environments influence innovation behaviors and collaborative dynamics.
2. **"Social Economy and Social Open Innovation in Different Contexts"**  
A cross-national study exploring the manifestations of social open innovation in South Korea, Italy, and Poland, highlighting the role of social economy in fostering inclusive innovation.
3. **"Open Innovation of Firms in the Semiconductor Value Chain"**  
An in-depth investigation into global patent data and case studies from South Korea, Japan, and Germany, shedding light on how firms in the semiconductor industry navigate innovation through open practices.
4. **"Open Innovation in the Fine Art Industry"**  
An exploration of the reverse structure of open innovation and the price paradox within the fine art sector, challenging traditional notions of innovation.
5. **"Individual AI Mechanism Design Based on the Open Innovation Dynamics"**  
A forward-looking study proposing new mechanisms for integrating artificial intelligence into open innovation processes at the individual level.
6. **"The Role of Business Models in Bridging Technology and Market: Mathematical Modeling and Its Application to Artificial Intelligence"**  
Mathematical modeling of business model, and the re-finding the role of business model and the its meaning.

Each of these works reflects our collective endeavor to understand and shape the future of open innovation in a complex, interconnected world.

I extend my deepest gratitude to the President of DGIST, and my honorable mentor Dr. KunWoo Lee, DGIST: the organizing university of SOI 2025, the Society of Open Innovation: Technology, Market, and Complexity board members, and all the scholars who have contributed to the success of this conference. Your dedication and collaborative spirit are the bedrock of our shared mission.

I encourage all participants to engage actively in the sessions, discussions, and networking opportunities throughout the week. Let us collaborate, learn from one another, and co-create knowledge that will drive sustainable and inclusive innovation forward.

Thank you once again for your participation and contributions. I look forward to a fruitful and inspiring conference.

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea



**Prof. Dr. JinHyo Joseph Yun**

Organizing President,

Society of Open Innovation: Technology, Market, and Complexity 2025 Conference

Professor, DGIST

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

<Appendix> SOI 2015-SOI 2024, Theme, Date, Venue & Photos

### SOI 2015-SOI & KCWS 2015

-Theme: Open Innovation, Knowledge City & Creative Economy

-Date: June 14 – 18, 2015

-Hosting & Venue: DGIST (R1, Research Administration B/D), Daegu, Korea





## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

### SOI 2016-SOI & San Jose University 2016

-Theme: Open Innovation of Start-ups and Firms in Value Chain

-Date: May 31 – June 3, 2016

- Hosting & Venue: San Jose State University (SJSU), California, USA



## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

### SOI 2017-SOI & Riga Technical University 2017

-Theme: Let Us Conquer the Growth Limits of Capitalism- through New Combination between Technology, and Market or Society

-Date: June 15 - June 18, 2017

- Hosting & Venue: Riga Technical University, Riga, Latvia



## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

### SOI 2018-SOI & DEMI of the UNINA 2018

-Theme: How to Respond to the 4th Industrial Revolution?-Open Innovation and Cyber-Physics from Manufacturing to Service Industry

-Date: June 26(Tue.) - June 29(Fri.), 2018

- Hosting & Venue: University of Naples Federico II, Naples, Italy





## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

### SOI 2019-SOI & Meijo University 2019

-Theme: Second IT Revolution, and Dynamic Open Innovation; From Smart City, Autonomous Car, Intelligent Robot, and Block Chain to Sharing Economy

-Date: July 02(Tue.)~July 07(Sun.), 2019

- Hosting & Venue: Meijo University, Nagoya, Japan



## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

### SOI 2020-SOI & Oklahoma State University 2020(Online)

-Theme: Second IT Revolution, and Dynamic Open Innovation; From Smart City, Autonomous Car, Intelligent Robot, and Block Chain to Sharing Economy

-Date: July 10(Fri.) - July 13(Mon.), 2020

- Hosting & Venue: Oklahoma State University, Stillwater, Oklahoma, USA(Due to the COVID-19, the real venue is in DGIST) & Online



## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

### SOI 2021-SOI Virtual Conference (Pandemic) 2021

-Theme: Open Innovation and Business Model after Pandemic of COVID-19

-Date: July 12(Mon.) - July 15(Thur.), 2021

- Hosting & Venue: Virtual Conference (Pandemic)





## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

### SOI 2022-SOI & Swansea University 2022

-Theme: Digital Transformation: New Directions for the World Economy, Financial Systems and Business Models

-Date: July 6(Wed.) ~ 9(Sat.), 2022

- Hosting & Venue: Swansea University, Wales, UK



## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

### SOI 2023-SOI & DEMI of the UNINA 2023

-Theme: New Way of Open Innovation and Open Business Model after Pandemic for the Recovery of World Economy

-Date: July 12(Wed.) ~ 15(Sat.), 2023

- Hosting & Venue: University of Naples Federico II, Naples, Italy





## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

### SOI 2024-SOI & Riga Technical University 2024

-Theme: New Frontiers of Business Model and Sustainability of Economy

-Date: July 9(Tue.) ~ 12(Fri.), 2024

- Hosting & Venue: Riga Technical University, Riga, Latvia



<Reference>

Yun JHJ(Corr.), Zhao X., Park K., Ahn H.(Co-Corr.), Liu Z., Tan Y., (2025). **How does the campus architecture design motivate open innovation? : Comparative analysis among Apple park campus, Dyson Malmesbury campus, and DGIST campuses.** *Proceeding of the Society of Open Innovation: Technology, Market, and Complexity 2025 Conference.*

Yun JHJ(Corr.), Zhao X., Koo I.(Co-Corr.), Della Corte V., Del Gaudio G.(Co-Corr.), Turon K.(Co-Corr.), (2025). **Social Economy and Social Open Innovation in Different Contexts; South Korea, Italy, and Poland.** *Proceeding of the Society of Open Innovation: Technology, Market, and Complexity 2025 Conference.*

Yun JHJ(Corr.) Pyka A.(Co-Corr.), Zhao X., Sadoi Y., Lee H., (2025). **Open innovation of firms in the semiconductor value chain; Global patent analyses and case studies of firms in South Korea, Japan, and Germany.** *Proceeding of the Society of Open Innovation: Technology, Market, and Complexity 2025 Conference.*

Yun JHJ(Corr.) Eune J.(Co-Corr.), Zhao X., Del Gaudio G., Della Corte V., Thierry B. (2025). **Capitalization of Contemporary Art : The Reverse Structure of OI, and the Price Paradox.** *Proceeding of the Society of Open Innovation: Technology, Market, and Complexity 2025 Conference.*

Yun JHJ., Zhao X., Zhao X., Ahn H.(co-corr.), Park K. (2025). **Individual AI Mechanism Design Based on the Open Innovation Dynamics.** *Proceeding of the Society of Open Innovation: Technology, Market, and Complexity 2025 Conference.*

Yun JHJ., Zhao X., Ahn H.(Co-Corr.), Park K., (2025). **The Role of Business Models in Bridging Technology and Market: Mathematical Modeling and Its Application to Artificial Intelligence.** *Proceeding of the Society of Open Innovation: Technology, Market, and Complexity 2025 Conference.*

## Offline(On-site conference rooms) & Zoom links Introduction

### -Keynote Speech

Contents	Onsite Room	Zoom Links
Keynote Speech	Room 204 (Auditorium)	Zoom link: <a href="https://us06web.zoom.us/j/81524883885?pwd=7D53U6Ex8F2mmiCghDOUfbS5EpOuRD.1">https://us06web.zoom.us/j/81524883885?pwd=7D53U6Ex8F2mmiCghDOUfbS5EpOuRD.1</a> Meeting ID: 815 2488 3885 Passcode: SOISOI3

### -Session Presenters

Contents	Onsite Room	Zoom Links
Special & General Session Presentation	Room 202 (Conference Room)	Zoom link: <a href="https://us06web.zoom.us/j/86235904629?pwd=DpuvAJ8Y45IAWEX8SGbvcpG1WtM39X.1">https://us06web.zoom.us/j/86235904629?pwd=DpuvAJ8Y45IAWEX8SGbvcpG1WtM39X.1</a> Meeting ID: 862 3590 4629 Passcode: SOISOI1
	Room 203 (International Conference Hall)	Zoom link: <a href="https://us06web.zoom.us/j/81303208148?pwd=bHVQVXZuVmVYMkFOTjZuRTJXdWp1Zz09">https://us06web.zoom.us/j/81303208148?pwd=bHVQVXZuVmVYMkFOTjZuRTJXdWp1Zz09</a> Meeting ID: 813 0320 8148 Passcode: SOISOI2
	Room 204 (Auditorium)	Zoom link: <a href="https://us06web.zoom.us/j/81524883885?pwd=7D53U6Ex8F2mmiCghDOUfbS5EpOuRD.1">https://us06web.zoom.us/j/81524883885?pwd=7D53U6Ex8F2mmiCghDOUfbS5EpOuRD.1</a> Meeting ID: 815 2488 3885 Passcode: SOISOI3
	Room 301 (Main Conference Room)	Zoom link: <a href="https://zoom.us/j/92547601434?pwd=gjiqkukpLilaoHKWII6ron3AT0ylJA.1">https://zoom.us/j/92547601434?pwd=gjiqkukpLilaoHKWII6ron3AT0ylJA.1</a> Meeting ID: 925 4760 1434 Passcode: SOISOI4



## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

### \*Important Instructions for Using Zoom

1. Please download zoom app(<https://zoom.us/download>) and register as a member.

\* It's free. Otherwise, it might limit your video chatting and other rights.

2. When a presenter is presenting, **all other joiners** should mute their audios. Method is like the following:

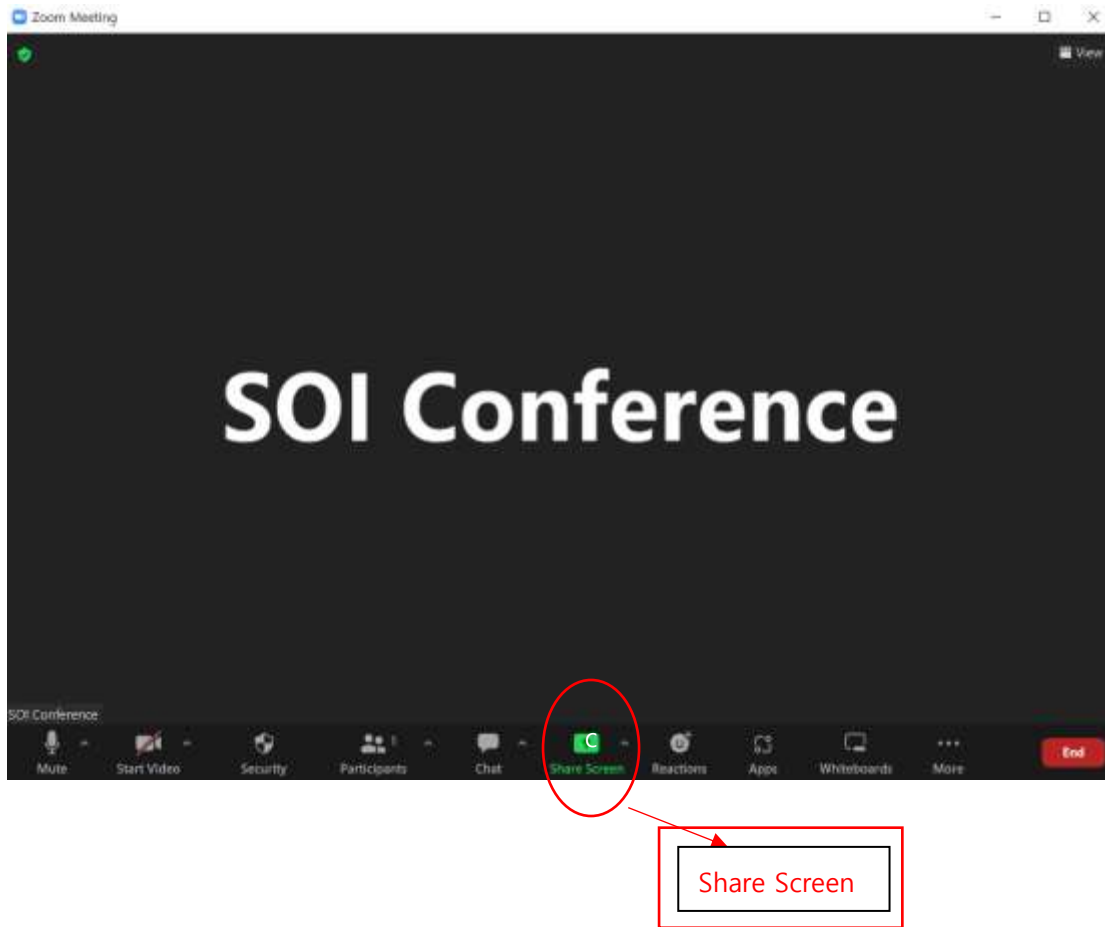


Mute the Audio

## SOI 2025 10th Anniversary Conference

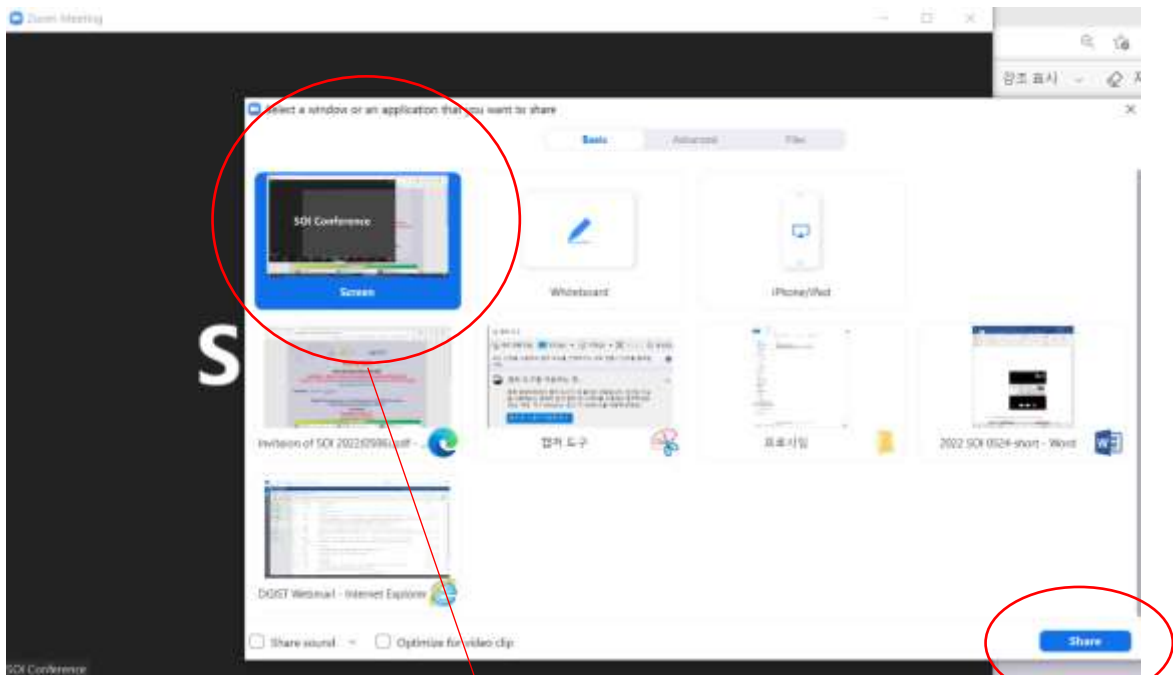
July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

### 3. Method for Presenters to show the PPT with others



## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea



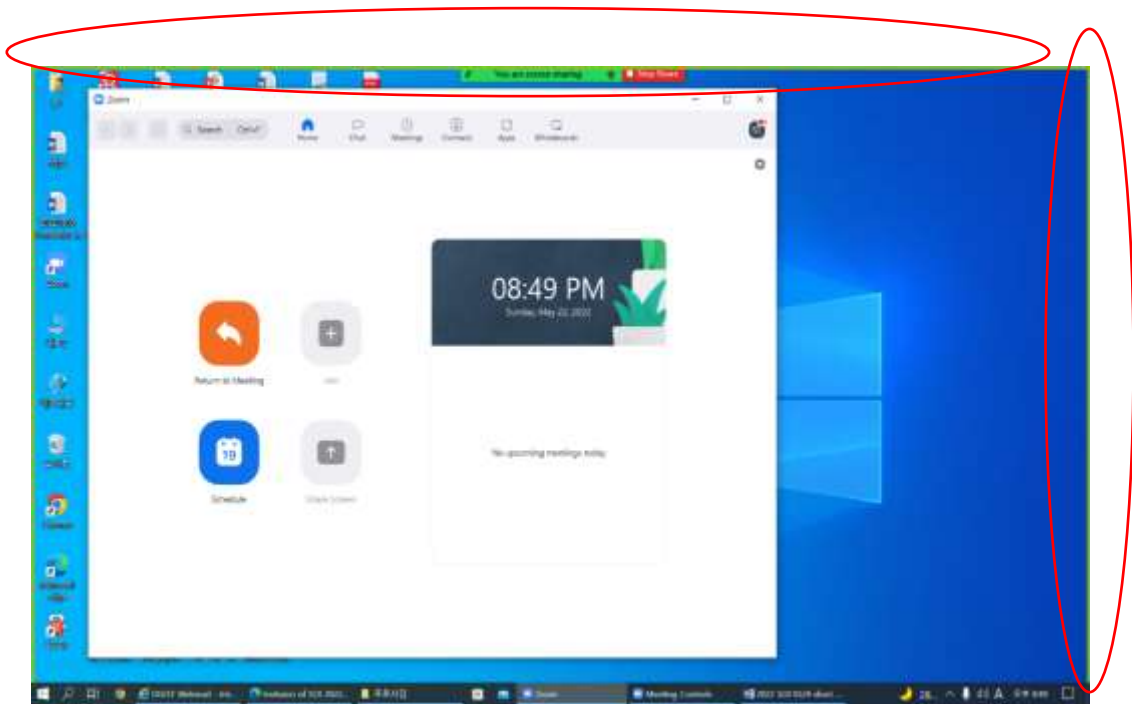
\*When ask you to "Select a window or an application that you want to share", please just select the "Screen". And then press the "Share" button.

\* Otherwise, it might limit your slides show(stop showing) to others.



## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

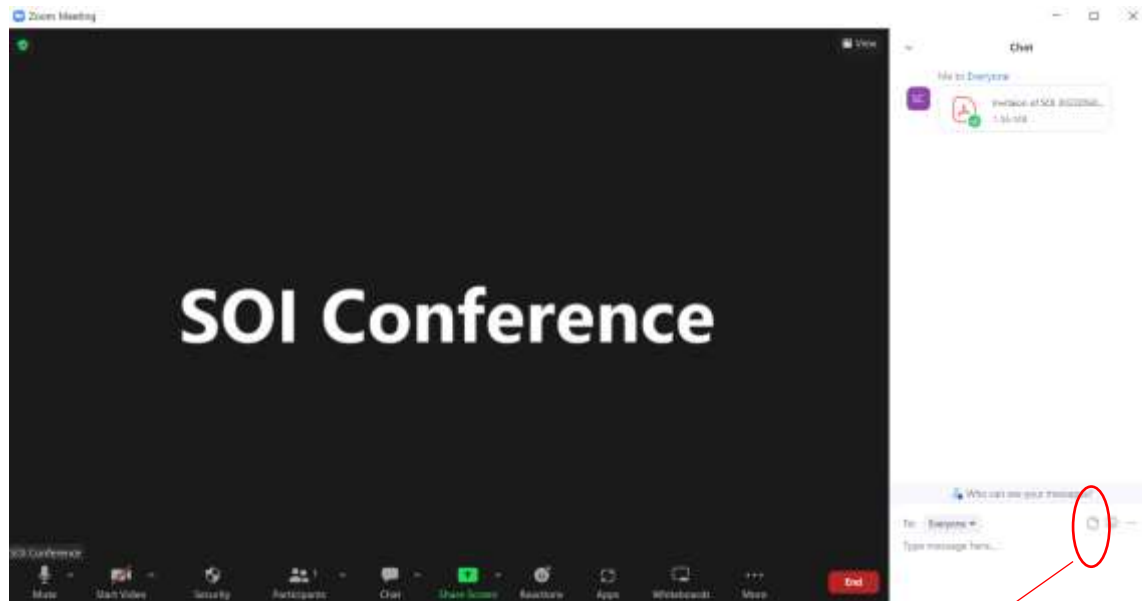


\*When there is a green color window frame, it means you are sharing your screen.

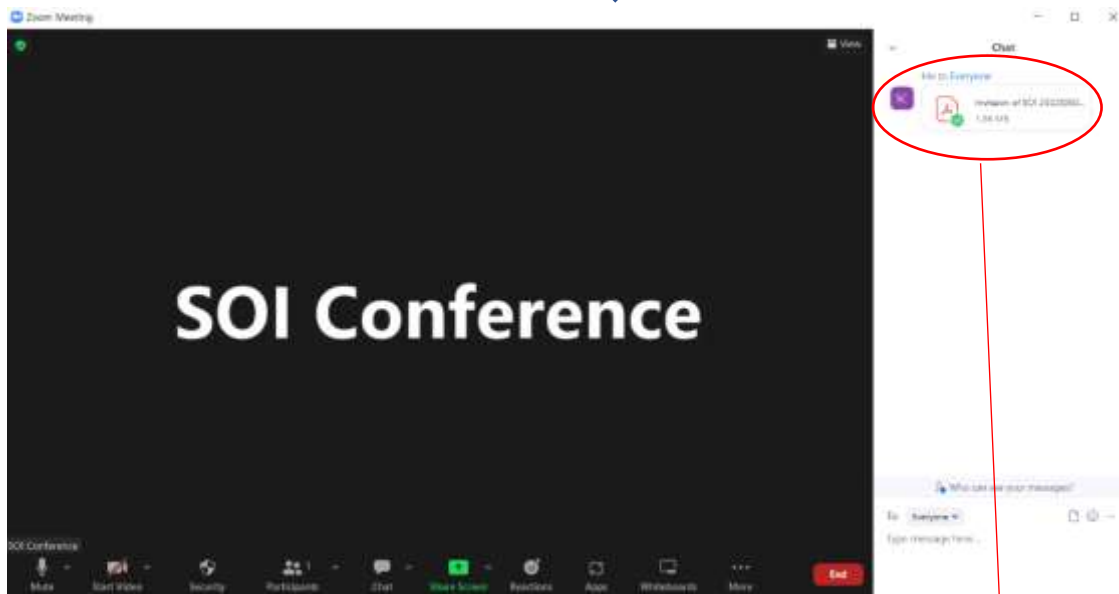
# SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

4. Presenters PPT upload(Available for others to download and check)



Press here and select the file

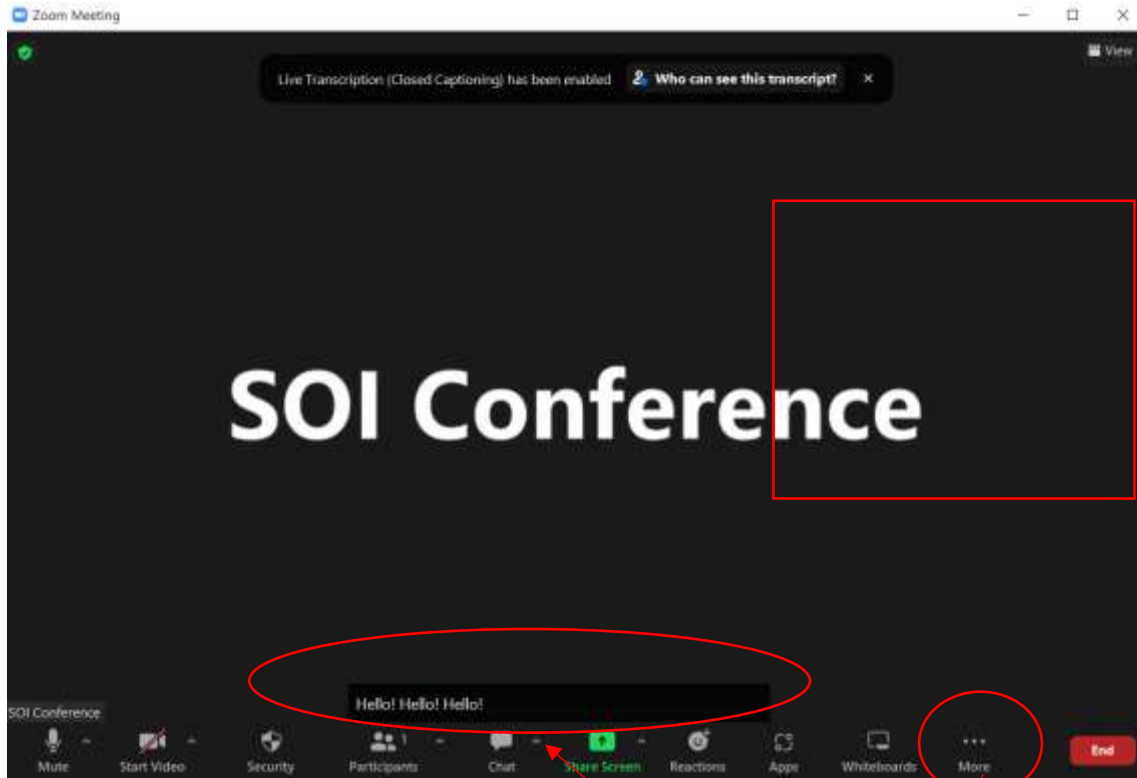


File Uploaded

# SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

## 5. Additional Function: Live Transcript



## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

# SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

Venue: Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero,  
Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea

July 14 (Monday)

## Program Time Schedule & Contents

## **SOI 2025 10th Anniversary Conference**

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea



## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

7.14 (Mon.)	<b>Programs</b> *Venue: Room 203(International Conference Hall), Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea	
09:20~18:30	<p style="text-align: center;"><b>Open Innovation Academy 2025 Summer School</b></p> <p style="text-align: center;"><b>Presiders: Hengju Ahn(DGIST, Korea), Xiaofei Zhao(DGIST, Korea)</b></p> <p style="text-align: center;"><b>*We will check the attendance, full attendants will be awarded "SOI Open Innovation Academy Alumni Certificate" on July 14, 2025</b></p> <p>•Venue &amp; Address: Room 203(International Conference Hall), Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea</p> <p style="text-align: center;">*For more schedule details &amp; lecture materials, please check Page 30-33.</p> <p style="text-align: center;"><b>*Contact: Principal Professor JinHyo Joseph Yun; +82-10-6697-8355, jhyun@dgist.ac.kr</b> <b>Or Assistant Professor Xiaofei Zhao; +82-10-4072-8595, qiaoke@dgist.ac.kr</b></p>	

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

July 14 (Monday)

(Venue: Room 203(International Conference Hall), Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea; Time: 09:20~18:30)


# Open Innovation Academy 2025 Summer School Programme

Presiders: Hengju Ahn(DGIST, Korea), Xiaofei Zhao(DGIST, Korea)

\* We will check the attendance, full attendants will be awarded "SOI Open Innovation Academy Alumni Certificate".


\*All Lecture Materials could be downloaded through

[https://www.openinnovationtmc.org/public/front/index.php?menu=0301&moth=boardView&bdm\\_seq=5788](https://www.openinnovationtmc.org/public/front/index.php?menu=0301&moth=boardView&bdm_seq=5788)

Date	Time	Lecturer
July 14(Mon.) 2025	09:20~10:20 (Lecture time)  10:20~10:30 Q&A and discussing	<b>Venni V Krishna</b> (University of New South Wales, Australia) <ul style="list-style-type: none"><li>• FASS at the University of New South Wales, Australia</li><li>• Editor-in-Chief of Science, Technology and Society(SSCI)</li><li>• Former Professor, Jawaharlal Nehru University, India</li></ul>  <p><b>Lecture Materials</b></p> <ol style="list-style-type: none"><li>1. Krishna, V. V. (2024). The Indian Science Community: Historical and Sociological Studies-<a href="#">Chapter 5. Science and Technology Policy Cultures: Phases of S&amp;T for Development</a> . Taylor &amp; Francis.</li><li>2. Krishna, V. V. (2024). The Indian Science Community: Historical and Sociological Studies-<a href="#">Chapter 6. Gandhi and Subaltern Science: The Rise of Appropriate Technology and Inclusive Innovation in Contemporary India</a> . Taylor &amp;</li></ol>



## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

Date	Time	Lecturer
		<p>Francis.</p> <p>3. Krishna, V. V. (2024). <i>The Indian Science Community: Historical and Sociological Studies</i>-<a href="#">Chapter 7. Science Movements in India: Peoples and Alternative Science Movements</a> . Taylor &amp; Francis.</p>
	<b>10:30~10:50</b>	<b>Break Time</b>
	<p><b>10:50~11:50</b> (Lecture time)</p> <p><b>11:50~12:00</b> Q&amp;A and discussing</p>	<p><b>Biung-Ghi Ju</b> (Seoul National University, Korea)</p> <ul style="list-style-type: none"> <li>• Professor in the Department of Economics at Seoul National University, Korea</li> <li>• Director of the Center for Distributive Justice at Seoul National University</li> <li>• Former President (2018-2019) of Korean Association of Applied Economics</li> </ul>  <p><b>Lecture Materials:</b></p> <ol style="list-style-type: none"> <li>1. Ju, B. G., Kim, M., Kim, S., &amp; Moreno-Tertero, J. D. (2021). <a href="#">Fair international protocols for the abatement of GHG emissions</a>. <i>Energy Economics</i>, 94, 105091.</li> <li>2. Ju, B. G., &amp; Moreno-Tertero, J. D. (2018). <a href="#">Entitlement theory of justice and end-state fairness in the allocation of goods</a>. <i>Economics &amp; Philosophy</i>, 34(3), 317-341.</li> <li>3. Ju, B. G., &amp; Moreno-Tertero, J. D. (2017). <a href="#">Fair allocation of disputed properties</a>. <i>International Economic Review</i>, 58(4), 1279-1301.</li> </ol>
	<b>12:00~14:00</b>	<b>Lunch Break</b>
	<p><b>14:00~15:00</b> (Lecture time)</p> <p><b>15:00~15:10</b> Q&amp;A and discussing</p>	<p><b>Vincenzo Corvello</b> (University of Messina, Italy)</p> <ul style="list-style-type: none"> <li>• Associate Professor, University of Messina, Italy</li> <li>• Cofounder and former CEO of Beautiful Mind, an academic spin-off of University of Calabria</li> <li>• Editor in chief of the <i>European Journal of Innovation Management</i></li> </ul>

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

Date	Time	Lecturer
		 <p><b>Lecture Materials</b></p> <ol style="list-style-type: none"> <li>1. Corvello, V., Troise, C., Schiuma, G., &amp; Jones, P. (2024). <a href="#">How start-ups translate learning from innovation failure into strategies for growth</a>. <i>Technovation</i>, 134, 103051.</li> <li>2. Thomas, A., Duggal, H. K., Khatri, P., &amp; Corvello, V. (2024). <a href="#">ChatGPT Appropriation: A Catalyst for Creative Performance, Innovation Orientation, and Agile Leadership</a>. <i>Technology in Society</i>, 102619.</li> <li>3. Corvello, V., Felicetti, A. M., Ammirato, S., Troise, C., &amp; Ključnikov, A. (2024). <a href="#">The rules of courtship: What drives a start-up to collaborate with a large company?</a>. <i>Technological Forecasting and Social Change</i>, 200, 123092.</li> </ol>
	15:10~15:30	Break Time
	15:30~16:30 (Lecture time) 16:30~16:40 Q&A and discussing	<p><b>JinHyo Joseph Yun</b> (DGIST, Korea)</p> <ul style="list-style-type: none"> <li>• Tenured Principal Researcher, DGIST &amp; Principal Professor at Open Innovation Academy of SOI</li> <li>• Organizing President of Society of Open Innovation: Technology, Market, and Complexity(SOI)</li> <li>• Founding Editor-in-Chief of Journal of Open Innovation: Technology, Market, and Complexity(JOI)</li> </ul>  <p><b>Lecture Materials</b></p> <ol style="list-style-type: none"> <li>1. Yun, J. J., Zhao, X., Jeong, E., Ahn, H., &amp; Park, K. (2024). <a href="#">Micro open innovation dynamics under inter-rationality</a>. <i>Technological Forecasting and Social Change</i>, 201, 123263. doi.org/10.1016/j.techfore.2024.123263</li> <li>2. Yun, J. J., Zhao, X., &amp; Liu, Z. (2024). <a href="#">Regulation architecture</a></li> </ol>

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

Date	Time	Lecturer
		<p><a href="#">of open innovation under digital transformation: Case study on Telemedicine, and For-Profit-Hospital</a>. <i>Journal of Open Innovation: Technology, Market, and Complexity</i>, 100252.</p> <p>3. Yun. J.J.(Corr.) Kim B.(Co-corr.), Zhao X., Jeong E., Ahn J.(2024). <a href="#">Open Innovation Signals: Exploring the Financial Data with patents</a>, <i>Science, Technology, and Society</i>, DOI: 10.1177/09717218241238202</p>
	16:40~17:00	Break Time
	<p>17:00~18:00 (Lecture time)</p> <p>18:00~18:10 Q&amp;A and discussing</p>	<p><b>Tan Yigitcanlar</b> (Queensland University of Technology, Australia)</p> <ul style="list-style-type: none"> <li>• Professor at the Queensland University of Technology's School of Architecture and Built Environment, Australia</li> <li>• Honorary Professor at the Federal University of Santa Catarina in Brazil</li> <li>• Director of the Australia-Brazil Smart City Research and Practice Network</li> </ul>  <p><b>Lecture Materials</b></p> <ol style="list-style-type: none"> <li>1. Yigitcanlar, T., Senadheera, S., Marasinghe, R., Bibri, S., Sanchez, T., Cugurullo, F., &amp; Sieber, R., (2024). <a href="#">Artificial intelligence and the local government: a five-decade scientometric analysis on the evolution, state-of-the-art, and emerging trends</a>. <i>Cities</i>, 152(1), 105151; <a href="https://doi.org/10.1016/j.cities.2024.105151">https://doi.org/10.1016/j.cities.2024.105151</a>.</li> <li>2. Yigitcanlar, T., David, A., Li, W, Fookes, C., Bibri, S., &amp; Ye, X., (2024). <a href="#">Unlocking artificial intelligence adoption in local governments: best practice lessons from real-world implementations</a>, <i>Smart Cities</i>, 7(4), 1576-1625; <a href="https://doi.org/10.3390/smartcities7040064">https://doi.org/10.3390/smartcities7040064</a>.</li> <li>3. Yigitcanlar, T., Agdas, D., &amp; Degirmenci, K., (2023). <a href="#">Artificial intelligence in local governments: perceptions of city managers on prospects, constraints and choices</a>. <i>AI &amp; Society</i>, 38(1) 1135-1150; <a href="https://doi.org/10.1007/s00146-022-01450-x">https://doi.org/10.1007/s00146-022-01450-x</a>.</li> </ol>

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

Date	Time	Lecturer
	18:10~18:30	Discussion, Alumni Awarding & Farewell

**SOI 2025 10th Anniversary Conference**

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

# SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

Venue: Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero,  
Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea

July 15 (Tuesday)

## Program Time Schedule & Contents






## **SOI 2025 10th Anniversary Conference**

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

7.15(Tue.)	<b>Programs</b> <p style="text-align: right; font-size: small;">*Venue: Industry Visiting &amp; Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea</p>
09:00~14:00	<p style="text-align: center;"><b>Industry Visiting "Korea Water Cluster"</b></p> <p><b>Presiders:</b> Heongu Lee(OSP, Korea), Saimi Woo(BISTEP, Korea), Chavis Ketkaew(Khon Kaen Univ., Thailand), Phaninee Naruetharadhol(Khon Kaen Univ., Thailand)</p> <p style="text-align: center;"><b>Address:</b> 20, Guggasandan-daero 40-gil, Guji-myeon, Dalseong-gun, Korea; Tel.: 053-601-6037; <a href="https://www.watercluster.or.kr/eng/main.do">https://www.watercluster.or.kr/eng/main.do</a></p> <div style="display: flex; justify-content: space-around; align-items: center;">     </div> <p style="font-size: x-small;">01 Arena Facade's welcome video      05 VR walking attraction</p> <ol style="list-style-type: none"> <li>1. 09:00~09:30 DGIST → Korea Water Cluster</li> <li>•Bus waiting from 08:50 until 09:00 in front of Building R1, DGIST &amp; until 09:10 waiting in H501, DGIST Global Residence</li> <li>2. 09:30~13:00 Korea Water Cluster</li> <li>•The welcoming speech by the Korea Water Cluster President and the introduction of venture firms are included.</li> <li>•Bus departure at 13:00 from the parking lot of Korea Water Cluster</li> <li style="padding-left: 20px;">*12:00~13:00 Lunch time (Lunch box and water will be provided)</li> <li>3. 13:00~13:30 Korea Water Cluster → Building R1, DGIST</li> </ol>

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

	4. Only for the First 50 applicants who had sent the applications can participate in the tour. Contact: openinnovationtmc@dgist.ac.kr			
14:00~15:00	<b>Welcome Reception + Preliminary Registration</b> * <b>Venue: 2<sup>nd</sup> floor(in front of the Room 203), Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea (Coffee and dessert will be provided).</b>			
15:00~16:30	<b>Keynote Speech 1</b> (15:00~15:30) <b>Venni V Krishna</b> (University of New South Wales, Australia) •Theme: Open Science and its Enemies: Towards a sustainable and inclusive development in the 21st Century • <b>Venue: Room 204(Auditorium), Building R1, DGIST, 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea</b> * <b>Presiders: Han Nu Ngoc Ton(International University, VNU-HCMC, Vietnam) &amp; Minhan Kim(Sangmyung University, Korea)</b>			
	<b>Keynote Speech 2</b> (15:30~16:00) <b>Jason Potts</b> (RMIT University, Australia) •Theme: Contribution Systems: A New framework for open innovation [ <i>Online Speech</i> ] <b>Zoom link:</b> <a href="https://us06web.zoom.us/j/81524883885?pwd=7D53U6Ex8F2mmiCghDOUfbS5EpOuRD.1">https://us06web.zoom.us/j/81524883885?pwd=7D53U6Ex8F2mmiCghDOUfbS5EpOuRD.1</a> <b>Meeting ID: 815 2488 3885</b> <b>Passcode: SOISOI3</b>			
	<b>Keynote Speech 3</b> (16:00~16:30) <b>Weian Li</b> (Nankai University, China) •Theme: Green Governance and Evaluation			
16:30~17:00	<b>Break Time</b>			
17:00~18:30	<b>Room 202</b> <b>Zoom link:</b> <a href="https://us06web.zoom.us/j/86235904629?pwd=DpuvAJ8Y45IAWEX8SGbvcpG1WtM39X.1">https://us06web.zoom.us/j/86235904629?pwd=DpuvAJ8Y45IAWEX8SGbvcpG1WtM39X.1</a> <b>Meeting ID: 862 3590 4629</b> <b>Passcode: SOISOI1</b>	<b>Room 203</b> <b>Zoom link:</b> <a href="https://us06web.zoom.us/j/81303208148?pwd=bHVQVXZuVmVYMkFOtjZuRTJXdWp1Zz09">https://us06web.zoom.us/j/81303208148?pwd=bHVQVXZuVmVYMkFOtjZuRTJXdWp1Zz09</a> <b>Meeting ID: 813 0320 8148</b> <b>Passcode: SOISOI2</b>	<b>Room 204</b> <b>Zoom link:</b> <a href="https://us06web.zoom.us/j/81524883885?pwd=7D53U6Ex8F2mmiCghDOUfbS5EpOuRD.1">https://us06web.zoom.us/j/81524883885?pwd=7D53U6Ex8F2mmiCghDOUfbS5EpOuRD.1</a> <b>Meeting ID: 815 2488 3885</b> <b>Passcode: SOISOI3</b>	<b>Room 301</b> <b>Zoom link:</b> <a href="https://zoom.us/j/92547601434?pwd=gjiqkukpLilaoHKWII6ron3AT0ylJA.1">https://zoom.us/j/92547601434?pwd=gjiqkukpLilaoHKWII6ron3AT0ylJA.1</a> <b>Meeting ID: 925 4760 1434</b> <b>Passcode: SOISOI4</b>
	<b>Session</b> <b>Digital Innovation and Governance</b> <b>Online Chairs: Lei Ma(Nanjing Univ. of Science and Technology, China) &amp; Zheng Liu(Greenwich University, UK)</b> <b>Offline Chair: Deokho Cho(Daegu Univeristy, Korea)</b>	<b>Session</b> <b>Key Issues in Government</b> <b>Innovation in the AI Era</b> <b>Offline Chairs: Dongwook Kim(Seoul National Univ., Korea), Justina Hudenko(Riga Technical University, Latvia)</b>	<b>Session</b> <b>Economics of Open Innovation Dynamics</b> <b>Offline Chairs: JinHyo Joseph Yun(DGIST, Korea)</b> <b>Online Chair: Xinwei Ye(Nanjing Vocational University of Industry Technology, China)</b>	<b>Session</b> <b>Innovation and Business Models in Emerging Economies</b> <b>Online Chairs: Elina Gaile-Sarkane(Riga Technical University), Inga Lapina(Riga Technical University)</b> <b>Offline Chair: Jaeho Jung(Korea</b>

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

<ul style="list-style-type: none"> <li>• Paper 1: "The Influence of Carbon Perception on Sustainable Behaviors: A Multigroup Moderation Analysis of Openness to Technology Adoption" by <b>Sasichakorn Wongsachia, Teerapong Pienwisetkaew, Chavis Ketkaew*</b></li> <li>• Paper 2: "Dynamic Platform: emergent and deliberate strategies" by <b>Junic Kim, Shanghe Ahn</b></li> <li>• Paper 3: "Artificial Intelligence Age and Spiritual Revolution" by <b>Deokho Cho</b></li> <li>• Paper 4: "A study of navigating knowledge search and appropriability risk in open-source platforms" by <b>Junlin Zhu, Lei Ma*, Zheng Liu, Wenyan Wei [Online]</b></li> <li>• Paper 5: "Circular economy innovation in SMEs: A case study" by <b>Sirirat Sae Lim, Yun Chieh Chen, Zheng Liu* [Online]</b></li> </ul>	<ul style="list-style-type: none"> <li>• Paper 1: "Advancing Public Administration through Information Governance: An Academic Study in the AI Era" by <b>Hanbyul Choi, Dongwook Kim</b></li> <li>• Paper 2: "Decentralized Decision-Making in the Shadow of "Hierarchy": How Informal Hierarchy Differences Induce Deviant Voting Behavior" by <b>Wenchang Li, Runhui Lin</b></li> <li>• Paper 3: "Application of Sustainable Infrastructure Criteria at Publicly Owned Infrastructure Management Companies" by <b>Ieva Kustova, Justina Hudenko, Natalja Lace</b></li> <li>• Paper 4: "Comparative Study of AI National Strategies in Major Countries: Focusing on the UK, France, China, and South Korea" by <b>Sen Zhan &amp; Choong-Sik Chung</b></li> <li>• Paper 5: "Exploring Openness within European Universities Alliances: Challenges and Opportunities of Open Innovation and Open Science" by <b>Krista Opmane, Arturs Zeps, Inga Lapina [Online]</b></li> </ul> <p><b>Honor Discussor: Weian Li</b></p>	<ul style="list-style-type: none"> <li>• Paper 1: "Social Economy and Social Open Innovation in Different Contexts; Findings from Cities in South Korea, Italy, and Poland" by <b>JinHyo Joseph Yun*, Xiaofei Zhao, Inhyouk Koo*, Valentina Della Corte, Giovanna Del Gaudio*, Katarzyna Turon*</b></li> <li>• Paper 2: "Exploring the influence of leaders and peers on job performance" by <b>Choukang Chiu, Chieh-Peng Lin</b></li> <li>• Paper 3: "Development of a theoretical framework to Evaluate and Rank the Innovation Efficiency of OECD countries" by <b>Ali Murtaza Matto, Nawar Khan, Jeonghwan Jeon*</b></li> <li>• Paper 4: "The implementation of open innovation in energy recovery towards sustainable development" by <b>Radosław Wolniak [Online]</b></li> <li>• Paper 5: "The Co-evolution Strategy of Government, industrial Internet Platform and SMEs in Regional industrial Internet Ecosystem: The Role of Government Subsidies and Value Co-creation" by <b>Xinwei Ye*, Lan Du, Lei Ma, Zheng Liu [Online]</b></li> </ul> <p><b>Honor Discussor: Venni V Krishna</b></p>	<p><b>University, Korea)</b></p> <ul style="list-style-type: none"> <li>• Paper 1: "Transformation of Standardization Value from Measurement Reference to Best Practice Benchmark" by <b>Arta Pilena-Dalberga, Inga Lapina</b></li> <li>• Paper 2: "Intuitional Characteristics and Roll-Call Voting in EU AI Act" by <b>Young-hwan Jeon, Meeyoung Park*</b></li> <li>• Paper 3: "A Data-Driven Approach to Copper Price Forecasting: Integrating Macroeconomic Indicators with Time Series and Machine Learning Models" by <b>Nawon Park, JaeHo Jung</b></li> <li>• Paper 4: "Comparative Study of Artificial Intelligence Regulations: Focusing on the EU and US" by <b>Meeyoung Park, Young-hwan Jeon*</b></li> <li>• Paper 5: "Increasing the importance of biofuels in the global energy mix as a determinant of innovation and changes in research methodology" by <b>Bożena Szczucka-Lasota*, Tomasz Węgrzyn, Abilio Silva [Online]</b></li> </ul>
--	--	---	---

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

19:00~

Invited VIP Dinner by the president of SOI

**\*Presiders: Sang-Don Lee(Ewha Womans Univ., Korea), Natalja Lace(Riga Technical Univ., Latvia), Tan Yigitcanlar(Queensland Univ. of Technology's, Australia)**

• Venue: "Sann El-Arca"; Address: 416, Hyuyangnim-gil, Yuga-eup, Dalseong-gun, Daegu, 42990, Korea; Tel: + 82 0507-1339-4089

\* We will contact the invited VIPs separately and distribute the VIP dinner invitation letter in advance.



July 15 (Tuesday)

## Industry Visiting

### “Korea Water Cluster”

20, Gukgasandan-daero 40-gil, Guji-myeon, Dalseong-gun, Korea; Tel.: 053-601-6037; <https://www.watercluster.or.kr/eng/main.do>



1. 09:00~09:30 DGIST → Korea Water Cluster

- Bus waiting from 08:50 until 09:00 in front of Building R1, DGIST & until 09:10 waiting in H501, DGIST Global Residence

2. 09:30~13:00 Korea Water Cluster

- The welcoming speech by the Korea Water Cluster President and the introduction of venture firms are included.

- Bus departure at 13:00 from the parking lot of Korea Water Cluster

\*12:00~13:00 Lunch time (Lunch box and water will be provided)

3. 13:00~13:30 Korea Water Cluster → Building R1, DGIST

4. Only for the First 50 applicants who had sent the applications can participate in the tour.

Contact: [openinnovationmc@dgist.ac.kr](mailto:openinnovationmc@dgist.ac.kr)

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

### July 15 (Tuesday)

(Venue: 2<sup>nd</sup> floor(in front of the Room 203), Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea; Time: 14:00~15:00)

## Welcome Reception + Preliminary Registration

- Registration & Coffee and dessert will be provided at 2nd floor(in front of the Room 203)



## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

July 15 (Tuesday)

(Venue: Room 204(Auditorium); Building R1, DGIST, 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea; Time: 15:00~16:30)

### Keynote Speech

	<p><b>Keynote Speech 1</b> (15:00~15:30) <b>Venni V Krishna</b> (University of New South Wales, Australia) •Theme: Open Science and its Enemies: Towards a sustainable and inclusive development in the 21st Century</p> <p><b>*Allocated honor discussion session &amp; time: July 15, 17:00~18:30; Venue: Room 204</b></p>
	<p><b>Keynote Speech 2</b> (15:30~16:00) <b>Jason Potts</b> (RMIT University, Australia) •Theme: Contribution Systems: A New framework for open innovation <b>[Online Speech]</b></p> <p><b>Zoom link:</b> <a href="https://us06web.zoom.us/j/81524883885?pwd=7D53U6Ex8F2mmiCghDOUfbS5EpOuRD.1">https://us06web.zoom.us/j/81524883885?pwd=7D53U6Ex8F2mmiCghDOUfbS5EpOuRD.1</a></p> <p><b>Meeting ID: 815 2488 3885</b> <b>Code: SOISOI3</b></p>
	<p><b>Keynote Speech 3</b> (16:00~16:30) <b>Weian Li</b> (Nankai University, China) •Theme: Green Governance and Evaluation</p> <p><b>*Allocated honor discussion session &amp; time: July 15, 17:00~18:30; Venue: Room 203</b></p>



## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

### July 15 (Tuesday)

(Venue: Room 202(Conference Room), Room 203(International Conference Hall), Room 204(Auditorium), Room 301(Main Conference Room); Building R1, DGIST, Daegu, Korea;  
Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea; Time: 17:00~18:30)

## Presentation (4 Sessions)

▪Please check page 38~39 for more details.

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

**July 15 (Tuesday)**

(Venue: "Sann El-Arca"; Address: 416, Hyuyangnim-gil, Yuga-eup, Dalseong-gun, Daegu, 42990, Korea; Tel: + 82 0507-1339-4089; Time: 19:00~)

### Invited VIP Dinner by the president of SOI

\*We will contact the invited VIPs separately and distribute the VIP dinner invitation letter in advance.



\*Bus will be prepared from conference venue → restaurant. After the dinner, bus will back from restaurant to DGIST global residence.

## **SOI 2025 10th Anniversary Conference**

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

# SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

Venue: Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero,  
Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea

**July 16 (Wednesday)**

## Program Time Schedule & Contents

## **SOI 2025 10th Anniversary Conference**

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

7. 16(Wed)	Programs				*Venue: Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea
Time	Room 202 Zoom link: <a href="https://us06web.zoom.us/j/86235904629?pwd=DpuvAJ8Y45IAWEX8SGbvcpG1WtM39X.1">https://us06web.zoom.us/j/86235904629?pwd=DpuvAJ8Y45IAWEX8SGbvcpG1WtM39X.1</a> Meeting ID: 862 3590 4629 Passcode: SOISO11	Room 203 Zoom link: <a href="https://us06web.zoom.us/j/81303208148?pwd=bHVQVXZuVmVVMkFOTjZuRTJXdWp1Zz09">https://us06web.zoom.us/j/81303208148?pwd=bHVQVXZuVmVVMkFOTjZuRTJXdWp1Zz09</a> Meeting ID: 813 0320 8148 Passcode: SOISO12	Room 204 Zoom link: <a href="https://us06web.zoom.us/j/81524883885?pwd=7D53U6Ex8F2mmiCghDOUfbS5EpOuRD.1">https://us06web.zoom.us/j/81524883885?pwd=7D53U6Ex8F2mmiCghDOUfbS5EpOuRD.1</a> Meeting ID: 815 2488 3885 Passcode: SOISO13	Room 301 Zoom link: <a href="https://zoom.us/j/92547601434?pwd=gjiqkukpLilaoHKWII6ron3AT0yIJA.1">https://zoom.us/j/92547601434?pwd=gjiqkukpLilaoHKWII6ron3AT0yIJA.1</a> Meeting ID: 925 4760 1434 Passcode: SOISO14	
08:00~09:00	Registration (Registration Desk: 2nd floor(in front of the Room 203), Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea)				
09:00~10:30	<p><b>Session</b> <b>Innovative Business Models and Strategic Collaborations for Future Growth</b> <b>Chairs: Junic Kim(KonKuk University, Korea) &amp; Erlinda N. Yunus(Sekolah Tinggi Manajemen PPM, Indonesia)</b></p> <ul style="list-style-type: none"> <li>Paper 1: "The Transformative Impact of Artificial Intelligence on Business Model Innovation" by <b>Yeji Yun, Junic Kim</b></li> <li>Paper 2: "How leading manufacturing enterprises can build innovation ecosystems to achieve sustainable development" by <b>Boxiong Xie, Weixin Zhu, Yuxuan Xie*</b></li> <li>Paper 3: "Mapping the Landscape</li> </ul>	<p><b>Session</b> <b>Green Governance and Evaluation</b> <b>Chairs: Weian Li(Nankai University &amp; Tianjin University of Finance and Economics, China), Han Nu Ngoc Ton(International University, VNU-HCMC, Vietnam), Hyoung Ryul Ma(OSP, Korea)</b></p> <ul style="list-style-type: none"> <li>Paper 1: "Network expansion and the degree of technological innovation breakthroughs: The moderating role of new partner distance" by <b>Runhui Lin, Qiqi Xie*, Ze Ji</b></li> <li>Paper 2: "Core Assessment of CUBIC Framework: Effect of CDO's Strategic Orientation on Innovative Organizational Culture" by <b>Kyungdong Kim &amp;</b></li> </ul>	<p><b>Session</b> <b>Business Model Competition Session</b> <b>Chair: JuHyun Eune(Seoul National University, Korea)</b></p> <ul style="list-style-type: none"> <li>Paper 1: "Redesigning Pet Registration Systems for Pet Welfare Enhancement: A UX and Service Design Approach to Responsibility and Behavioral Engagement" by <b>Seohyo Ahn, Juhyun Eune*</b></li> <li>Paper 2: "A Study on the B2G Model for Public Application of Room Escape Game-Based (EER) Sex Education: A Proposal of the SEER Framework" by <b>Siwon Park, Juhyun Eune*</b></li> <li>Paper 3: "Proposed mentoring</li> </ul>	<p><b>Session</b> <b>Open Innovation, Entrepreneurship, and Innovation Ecosystem in Biohealth Industry</b> <b>Chairs: Kwangsoo Shin(The Catholic Univ. of Korea, Korea) &amp; Harry Jeong (Central Research Institute of Dr. Chung's Food, Korea) &amp; Pham Thanh Nga, (National Economics Univ., Vietnam)</b></p> <ul style="list-style-type: none"> <li>Paper 1: "Determinants of AI adoption across sectors and technological intensity" by <b>Changhyeon Song; Harry Jeong; Kwangsoo Shin*</b></li> <li>Paper 2: "The adoption and impact of open innovation practices on the performance of</li> </ul>	

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

7. 16(Wed)	Programs	*Venue: Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea		
	<p>of University Business Models” by <b>Junic Kim</b></p> <ul style="list-style-type: none"> <li>Paper 4: “Does collaboration in cyberspace promote entrepreneurial intentions? Empirical evidence of digital entrepreneurship among Korean university students in the AI era” by <b>ByungYun Bae, Sungyong Choi*</b></li> <li>Paper 5: “The Successor’s Journey: How Business Acumen and Resource Orchestration Drives Innovation, Logistics Integration, and Family Firm Performance” by <b>Erlinda N. Yunus*, Apri Hidayati, M Akhsanur Rofi</b></li> </ul>	<p><b>Min Han Kim</b></p> <ul style="list-style-type: none"> <li>Paper 3: “Towards Sustainability of Government Services in the era of Industry 5 Technologies: The Opportunities, Challenges and Key Drivers - A Systematic Review” by <b>Sunith Hebbar*</b></li> <li>Paper 4: “Professional Coping among Street-Level Bureaucrats in Vietnam: Explanation from Job Characteristics and Job Outcomes” by <b>Han Nu Ngoc Ton*, Trang Minh Tran-Pham, Tran Quang Tuyen, Chanh Thanh Minh Nguyen, Phuong Lan Nguyen</b></li> <li>Paper 5: “Mapping AI Diffusion and Stakeholder Networks in Korean Manufacturing (Through Topic Modeling and OM-Centric Analysis)” by <b>Hyoung Ryul Ma, Hyo Jung Jang, Dong Hoon Oh</b></li> </ul>	<p>program model to support North Korean women’s settlement” by <b>Seojin Hong, Juhyun Eune*</b></p> <ul style="list-style-type: none"> <li>Paper 4: “Strategic Private Equity Investment in Open Innovation Ventures and SMEs: Key Success Factors” by <b>Minseo Jung [Online]</b></li> <li>Paper 5: “Leveraging Open Innovation to Enhance ESG Solutions in Small and Medium Enterprises” by <b>Yoonseo Jung [Online]</b></li> </ul> <p><b>Honor Discusser: JinHyo Joseph Yun</b></p>	<p>firms: A case study of the Indian biotech industry” by <b>Aishwarya Narayan, Sumukh S Hungund, Lidwin Kenneth Michael</b></p> <ul style="list-style-type: none"> <li>Paper 3: “Impact of Global Convergence Trends on R&amp;D Investment in South Korea: A Comparative Analysis by Research Field” by <b>Woojoong Kim, Dongsoo Paik, Sunghyung Kong, Ahyoung So, Kyunghye Lee, Hyewhon Rhim*</b></li> <li>Paper 4: “Analyzing the Outcomes of Fostering Regional Women in STEM in context of Open Innovation” by <b>Saimi Woo</b></li> <li>Paper 5: “Legal framework for crypto-currencies and digital assets in Vietnam” by <b>Pham Thanh Nga, LL.M, Nguyễn Minh Thảo</b></li> </ul>
10:30~11:00	<p>Coffee Break <span style="float: right;">★ Coffee and dessert will be provided at 2nd floor(in front of the Room 203), Coffee Zone.</span></p>			
11:00~13:10	<p><b>Welcoming &amp; Congratulatory Speech by the President of DGIST-Prof. Kunwoo Lee (11:00~11:10)</b></p> <p style="text-align: center;">•Venue: Room 204(Auditorium); Building R1, DGIST, 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea *Presiders: Katarzyna Turoń(Silesian University of Technology, Poland) &amp; Kwangsoo Shin(The Catholic University of Korea, Korea)</p> <p><b>Welcoming Speech by the Executive President of SOI - Prof. Sandon Lee (11:10~11:20)</b></p> <p><b>Welcoming Speech by the Organizing President &amp; SOI 2025 Hosting Chair -Prof. Dr. JinHyo Joseph Yun (11:20~11:30)</b></p>			

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

7. 16(Wed)	Programs				*Venue: Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea
	<p>★10<sup>th</sup> Anniversary Conference Special Event - Appreciation Plaque Ceremony for the President Of DGIST, SOI 2025 Hosting University &amp; Special Scholarship Drawing(With Online 2 scholars and Offline 4 scholars) (11:30~11:40)</p> <p>*A \$300 scholarship will be awarded to each selected individual; however, eligibility is limited to those who are present either onsite or online at the time of the draw and have registered for the conference.</p>				
	<p><b>Keynote Speech 4</b> (11:40~12:10) <b>JinHyo Joseph Yun</b> (DGIST, Korea) •Theme: Post Capitalism under Digital Transformation: The Way to Entrepreneurial State with Open Innovation Dynamics</p>				
	<p><b>Keynote Speech 5</b> (12:10~12:40) <b>Vincenzo Corvello</b> (University of Messina, Italy) •Theme: Artificial Intelligence and the organizer of the future: individuals, groups, ecosystems</p>				
	<p><b>Keynote Speech 6</b> (12:40~13:10) <b>Biung-Ghi Ju</b> (Seoul National Universit, Korea) •Theme: Climate Justice: Historical Accountability vs. International Paretianism</p>				
13:00~14:30	Lunch Break				
14:30~16:00	<p><b>Session</b>  <b>Exploring the Impact of Open Innovation on Entrepreneurial Intentions and Social Performance &amp; Business Innovation in Digital Transformation</b>  <b>Offline Chair: SungYong Choi (Hanyang University, Korea)</b>  <b>Online Chair: Yuri Sadoi (Meijo University, Japan)</b></p> <ul style="list-style-type: none"> <li>Paper 1: "The Impact of Social Startup Networks on Economic and Social Performance" by <b>ByungYun Bae, Sungyong Choi*</b></li> <li>Paper 2: "Strategic Sourcing for Critical Needs: Balancing Costs,</li> </ul>	<p><b>Session</b>  <b>Politics, Power, and Evidence in Policy Decision-Making: Challenges and Discursive Dynamics</b>  <b>Chairs: Minhan Kim(Sangmyung University, Korea) &amp; Ruihui Lin(Nankai University, China)</b></p> <ul style="list-style-type: none"> <li>Paper 1: "Drivers of Innovative Work Behavior in Public Organizations: A CatBoost–SHAP Approach" by <b>Min Han Kim &amp; Kyungdong Kim</b></li> <li>Paper 2: "Fractal Features of Knowledge Networks" by <b>Runhui Lin*, Meichen Chen</b></li> </ul>	<p><b>Session</b>  <b>Marketing &amp; Innovation</b>  <b>Chairs: Sungho Lee(University of Seoul, Korea) &amp; Mahesh Prabhu H(Manipal Academy of Higher Education, India)</b></p> <ul style="list-style-type: none"> <li>Paper 1: "How does the campus architecture design motivate open innovation?-Comparative analysis among Apple park campus, Dyson Malmesbury campus, and DGIST campuses" by <b>JinHyo Joseph Yun*, Xiaofei Zhao, Kyungbae Park, Heungju Ahn*, Zheng Liu, Tan Yigitcanlar</b></li> <li>Paper 2: "Understanding the</li> </ul>	<p><b>Session</b>  <b>Innovation &amp; Growth</b>  <b>Chairs: Kangwon Lee(Korea Institute for Advanced Study, Korea) &amp; Jaeho Jung(Korea University, Institute of Future Growth, Korea) &amp; Asish Oommen Mathew(Manipal Academy of Higher Education, India)</b></p> <ul style="list-style-type: none"> <li>Paper 1: "Dynamic Analysis of R&amp;D Productivity among European Countries" by <b>Jaeho Jung, Kangwon Lee</b></li> <li>Paper 2: "Adoption and Purchase Intentions of AR Smart Glasses Among Gen Z: Analyzing Key</li> </ul>	



## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

7. 16(Wed)	<b>Programs</b> *Venue: Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea				
	<p>Risks and Sustainability in Operations” by <b>Evi Rahayu Izzah, Erlinda N. Yunus*</b></p> <ul style="list-style-type: none"> <li>Paper 3: “Exploring the Impact of Social Media on Sustainability Narratives: Quantitative Content Analysis of Facebook Pages of Creative” by <b>Julija Surikova, Deniss Sceulovs, Zane Drinke, Valdis Luks</b></li> <li>Paper 4: “How AI helps team autonomy?” by <b>Joe Justice, Kazutaka Sankai, Yuri Sadoi [Online]</b></li> <li>Paper 5: “Succession in Driving Innovation within Family-Owned Businesses in Japan” by <b>Yuri Sadoi, Sergei Shaposhinikov [Online]</b></li> </ul>	<ul style="list-style-type: none"> <li>Paper 3: “The strategic use of digital transformation capability: A meta-analytic approach” by <b>Chang, Woojung, Jeong-Bin Whang* &amp; Jong-Ho Lee</b></li> <li>Paper 4: “How Earthquake Shocks Affect Executives’ Excess Perk Consumption: A Quasi-Natural Experiment from the Wenchuan Earthquake” by <b>LI Weian, ZHANG Wei, GAO Mingyang</b></li> <li>Paper 5: “Governance Roles in Open Innovation Ecosystems: Exploring Challenges, Opportunities, and Emerging Concepts” by <b>Kristaps Banga, Elina Gaile-Sarkane [Online]</b></li> </ul>	<p>market-based capability of Korean firms based on dynamic capability and resource-advantage theory” by <b>Shin, Sohyoun, Sungho Lee</b></p> <ul style="list-style-type: none"> <li>Paper 3: “Dynamics Between the Enablers of Fintech Adoption: A Case of India” by <b>Deepa Prabhu, Mahesh Prabhu H*</b></li> <li>Paper 4: “Public Sentiments Factors Affecting the Continuance Intention of Fintech Lending in Indonesia” by <b>Widyarso Roswinanto*, Muhammad Akhsanur Rofi</b></li> <li>Paper 5: “Improving Climate Outcomes through Disclosure: The Effect of the CSRD on Spanish Firms” by <b>Santiago Fernández-Méndez, Beatriz Aibar-Guzmán, Cristina Aibar-Guzmán [Online]</b></li> </ul> <p><b>Honor Discussor: Vincenzo Corvello</b></p>	<p>Influences and Drivers” by <b>Anasuya K Lingappa, Ujwal Uthappa HP, Asish Oommen Mathew*</b></p> <ul style="list-style-type: none"> <li>Paper 3: “Innovation Ecosystem of Entrepreneurial Hospital” by <b>Harry Jeong; Changhyeon Song,</b></li> <li>Paper 4: “The co-creation of sustainability transition in air mobility” by <b>Giovanna Del Gaudio, Valentina Della Corte, Vincenzo Carraturo [Online]</b></li> <li>Paper 5: “Transformation of the Engineering Study Process: Perspectives of Academic Staff and Students” by <b>Silvija Mezinska*, Anda Abolina, Velta Lubkina, Ilze Baltina [Online]</b></li> </ul>	
16:00~16:30	Coffee Break      ★ Coffee and dessert will be provided at 2nd floor(in front of the Room 203), Coffee Zone.				
16:30~18:00	<b>Session</b> Impactful Sustainability	<b>Session</b> Innovation Diversity for Emerging	<b>Session</b> Innovation, Technology and	<b>Session</b> Open innovation and	

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

7. 16(Wed)	Programs	*Venue: Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea			
	<p><b>Innovation: the Future Challenges of Business, Technology and Creative Industries</b>  <b>Chairs: Deniss Ščeuļovs, Ilze Jankovska &amp; Arturs Bernovskis (Riga Technical University, Latvia), Junic Kim(KonKuk University, Korea), Ansun Park(OSP, Korea)</b></p> <ul style="list-style-type: none"> <li>Paper 1: "Policy Development Innovation with Gamification in Society 5.0" by <b>Arturs Bernovskis*, Deniss Sceulovs</b></li> <li>Paper 2: "Dynamic Capabilities and Export Performance: A Pathway to Business Innovation" by <b>Huan Meng, Junic Kim</b></li> <li>Paper 3: "A study of gender differences in AI adoption among Indian Engineering students: Implications for actionable initiatives at institutes" by <b>Geethalakshmi P M</b></li> <li>Paper 4: "Innovating Smart City Solutions through Gamification in Society 5.0" by <b>Arturs Bernovskis, Deniss Sceulovs</b></li> <li>Paper 5: "Exploring Intellectual Structure, Network and Research</li> </ul>	<p><b>Economies</b>  <b>Chairs: Natalja Lace(Riga Technical University, Latvia) &amp; Karine OGANISJANA (Riga Technical University, Latvia), Heongu Lee(OSP, Korea), Jeonghwan Jeon(Gyeongsang National Univ., Korea)</b></p> <ul style="list-style-type: none"> <li>Paper 1: "How do CEO Characteristics Impact Corporate Participation in Triple Income Distribution under the Background of Common Prosperity? —Machine learning based Approach" by <b>LIN Runhui, ZHANG Zhimin, QU Liang</b></li> <li>Paper 2: "AI-Driven Outpatient Management Using Smart KIOSK Systems, AR-IoT Vital Monitoring, Predictive Diagnosis, and Resource Optimization" by <b>Vineetha Edwina Jathanna*, Vimuktha E Salis, Dr. Kevin Manohar Salis, Pathanjali C</b></li> <li>Paper 3: "The Effect of Scientific and Technology Personnel's Self-Efficacy on Innovation Behavior Mediated by Learning Agility" by</li> </ul>	<p><b>Sustainability</b>  <b>Online Chair: Isabel-María García-Sánchez (Universidad de Salamanca, Spain)</b>  <b>Offline Chair: Sangdon Lee(Ehwa Womans University, Korea)</b></p> <ul style="list-style-type: none"> <li>Paper 1: "Research on the relationship between species richness and abiotic environmental factors in wetlands" by <b>Sandon Lee, Yein Lee</b></li> <li>Paper 2: "Integrating ESG into organizational strategies: roles of resilience and adaptive capabilities" by <b>Whang, Jeong-Bin, Jong-Ho Lee*, Sungho Lee</b></li> <li>Paper 3: "AI Coding Assistants in Computer Science Education: Adoption, Self-Efficacy, and Academic Open Innovation Practices" by <b>Asish Oommen Mathew*, Aditi Rishiraj</b></li> <li>Paper 4: "A Comparative Study on Entrepreneurial Perception between Korea and Nepal Using the Korea Entrepreneurship Index (KEI)" by <b>Myoungkwan Lee,</b></li> </ul>	<p><b>sustainability: strategies for transforming industries</b>  <b>Online Chairs: Valentina Della Corte &amp; Giovanna Del Gaudio(University of Naples Federico II, Italy)</b>  <b>Offline Chair: Dohyoung Kim (KETEP, Korea)</b></p> <ul style="list-style-type: none"> <li>Paper 1: "The impact of middle management on inter-organizational public R&amp;D team" by <b>Jooyeon Oh, Eungdo Kim, Dohyoung Kim*</b></li> <li>Paper 2: "SUSTAINABLE TOURISM DEVELOPMENT: A CASE STUDY IN MUI NE FISHING VILLAGE, PHAN THIET CITY, VIETNAM" by <b>Ho Dinh Phi, Linh Lê Anh, Bich Dinh Nguyet, Khoa Nguyen Van, Dinh Thi Quynh Hoa, Han Nu Ngoc Ton*</b></li> <li>Paper 3: "A Qualitative Study of Circular Business Models: Insights from Small and Medium-Sized Enterprises (SMEs)" by <b>Sasichakorn Wongsachia &amp; Chavis Ketkaew*</b></li> <li>Paper 4: "Fostering Open</li> </ul>	

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

7. 16(Wed)	Programs	*Venue: Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea			
	<p>Themes in Open Innovation” by <b>Ansun Park, Minzy Moon</b></p> <ul style="list-style-type: none"> <li>Paper 6: “LNG Supply Chain Optimization: Open Innovation in Transportation and Energy in Vietnam” by <b>Linh My Bui, Phuong Van Nguyen, Ulrich Elmer Hansen [Online]</b></li> </ul>	<p><b>Yongsu Jeong, Hyewon Hwang, Jeonghwan Jeon*</b></p> <ul style="list-style-type: none"> <li>Paper 4: “Converging Robotics and Design: Leveraging Open Innovation for Enhanced Human-Machine Collaboration” by <b>Heongu Lee, Jun jin-woo</b></li> <li>Paper 5: “How Do Customer-Robot Interactions Shape Employees’ Emotional Labor? Evidence from the Hospitality Industry in China” by <b>Sang-Joon Kim, Inhyouk Koo*, Zhang Yuanqi</b></li> <li>Paper 6: “Carbon Footprint as a Welding Challenge and Innovation for Environmental Protection” by <b>Bożena Szczucka-Lasota, Tomasz Węgrzyn, Abilio Silva [Online]</b></li> </ul>	<p><b>Daeyul Jeong, Sanghyeok Park*</b></p> <ul style="list-style-type: none"> <li>Paper 5: “CREATING INTEGRATED VALUE THROUGH THE CIRCULAR ECONOMY: IMPLICATIONS FOR BUSINESS AND SOCIETY” by <b>Saudi-Julieth Enciso-Alfaro &amp; Isabel-María García-Sánchez [Online]</b></li> <li>Paper 6: “ESG Controversies and Sustainability Reporting: An Empirical Study of Listed Companies” by <b>Albertina Paula Monteiro, Catarina Cepêda [Online]</b></li> </ul> <p><b>Honor Discusser: Biung-Ghi Ju</b></p>	<p>Innovation for Societal Safety through Exploiting Digital Transformation in Market Surveillance” by <b>Svetlana Mjakuskina*, Maija Kavosa, Inga Lapina</b></p> <ul style="list-style-type: none"> <li>Paper 5: “Open Innovation and intellectual capital in the fashion and textile industry” by <b>Valentina Della Corte, Enrico Di Taranto, Simone Luongo, Vincenzo Carraturo, Giovanna Del Gaudio [Online]</b></li> <li>Paper 6: “How does financial risk attitude influence small and medium enterprises’ digitalization and sustainability investment decisions?” by <b>Laura Trueba, Francisco-Manuel Somohano &amp; Begoña Torre [Online]</b></li> </ul>	
19:00~	<p><b>Gala Dinner</b></p> <p><b>*Presiders: Juhyun Eune (Seoul National Univ., Korea), Chavis Ketkaew(Khon Kaen Univ., Thailand), Ieva Kustova(Riga Technical Univ., Latvia), Eungdo Kim(Chungbuk National Univ., Korea)</b></p> <p>• Venue: “Gil-Mok Garden Restaurant”</p> <p>Address: 207, Hyuyangnim-gil, Yuga-eup, Dalseong-gun, Daegu, 42991, Korea; Tel: +82-053-615-7400</p> <p>*Best Restaurant should be experienced in Daegu; in advance application by sending the email to <a href="mailto:openinnovationtmc@dgist.ac.kr">openinnovationtmc@dgist.ac.kr</a>, SOI will cover the cost for all participants to celebrate the SOI 10th anniversary, as a token of appreciation for everyone who joined. *Contact: Xiaofei Zhao; +82-10-4072-8595, <a href="mailto:qiaoke@dgist.ac.kr">qiaoke@dgist.ac.kr</a></p> <p>*Bus will be prepared from conference venue → restaurant. After the dinner, bus will back from restaurant to DGIST global residence.</p>				

# SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

7. 16(Wed)	<b>Programs</b>	<b>*Venue: Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea</b>
		

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

**July 16(Wednesday)**

(Venue: 2nd floor(in front of the Room 203), Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea; Time: 08:00~09:00)

## Registration

- Registration Desk: 2nd floor(in front of the Room 203)

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

**July 16(Wednesday)**

(Venue: Room 202(Conference Room), Room 203(International Conference Hall), Room 204(Auditorium), Room 301(Main Conference Room); Building R1, DGIST, Daegu, Korea;  
Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea; Time: 09:00~10:30)

### **Presentation (4 Sessions)**

▪Please check page 49~50 for more details.

# SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

July 16(Wednesday)


(Venue: Room 204(Auditorium); Building R1, DGIST, 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea: 11:00~13:10)

## Opening Ceremony & Keynote Speech

<b>Opening Ceremony(11:00~11:40)</b>	
<b>Welcoming &amp; Congratulatory Speech by the President of DGIST - Prof. Kunwoo Lee</b> (11:00~11:10)	
<b>Welcoming Speech by the Executive President of SOI - Prof. Sandon Lee</b> (11:10~11:20)	
<b>Welcoming Speech by the Organizing President &amp; Hosting Chair SOI 2025- Prof. Dr. JinHyo Joseph Yun</b> (11:20~11:30)	
<b>★10<sup>th</sup> Anniversary Conference Special Event</b> - Appreciation Plaque Ceremony for the President Of DGIST, SOI 2025 Hosting University & Special Scholarship Drawing(With Online 2 scholars and Offline 4 scholars) (11:30~11:40) *A \$200 scholarship will be awarded to each selected individual; however, eligibility is limited to those who are present either onsite or online at the time of the draw and have registered for the conference.	
<b>Keynote Speech(11:40~13:10)</b>	
	<b>Keynote Speech 4</b> (11:40~12:10) <b>JinHyo Joseph Yun</b> (DGIST, Korea) •Theme: Post Capitalism under Digital Transformation: The Way to Entrepreneurial State with Open Innovation Dynamics  <b>*Allocated honor discussion session &amp; time: July 16, 09:00~10:30; Venue: Room 204</b>
	<b>Keynote Speech 5</b> (12:10~12:40) <b>Vincenzo Corvello</b> (University of Messina, Italy) •Theme: Artificial Intelligence and the organizer of the future: individuals, groups, ecosystems  <b>*Allocated honor discussion session &amp; time: July 16, 14:30~16:00; Venue: Room 204</b>

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

	<p><b>Keynote Speech 6</b> (12:40~13:10) <b>Biung-Ghi Ju</b> (Seoul National University, Korea) •Theme: Climate Justice: Historical Accountability vs. International Paretianism</p> <p><b>*Allocated honor discussion session &amp; time: July 16, 16:30~18:00; Venue: Room 204</b></p>
---	--

**July 16(Wednesday)**

(Venue: Room 202(Conference Room), Room 203(International Conference Hall), Room 204(Auditorium), Room 301(Main Conference Room); Building R1, DGIST, Daegu, Korea;  
Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea; Time: 14:30~18:00)

## Presentation (8 Sessions)

▪Please check page 51~54 for more details.



## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

July 16(Wednesday)

(Venue: "Gil-Mok Garden Restaurant", Address: 207, Hyuyangnim-gil, Yuga-eup, Dalseong-gun, Daegu, 42991, Korea; Tel: +82-053-615-7400; Time: 19:00~)

### Gala Dinner

"Gil-Mok Garden Restaurant"



\*Best Restaurant should be experienced in Daegu; in advance application by sending the email to [openinnovationtmc@dgist.ac.kr](mailto:openinnovationtmc@dgist.ac.kr), SOI will cover the cost for all participants to celebrate the SOI 10th anniversary, as a token of appreciation for everyone who joined.

\*Contact: Xiaofei Zhao; +82-10-4072-8595, [qiaoke@dgist.ac.kr](mailto:qiaoke@dgist.ac.kr)

\*Bus will be prepared from conference venue → restaurant. After the dinner, bus will back from restaurant to DGIST global residence.

## **SOI 2025 10th Anniversary Conference**

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

# SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

Venue: Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero,  
Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea

July 17 (Thursday)

## Program Time Schedule & Contents

## **SOI 2025 10th Anniversary Conference**

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

7. 17(Thur)	Programs				*Venue: Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea
Time	Room 202 Zoom link: <a href="https://us06web.zoom.us/j/86235904629?pwd=DpovAJ8Y45IAWEX8S5GbvcpG1WtM39X.1">https://us06web.zoom.us/j/86235904629?pwd=DpovAJ8Y45IAWEX8S5GbvcpG1WtM39X.1</a> Meeting ID: 862 3590 4629 Passcode: SOISO1	Room 203 Zoom link: <a href="https://us06web.zoom.us/j/81303208148?pwd=bHVQVXZuVmVYMkFOTjZuRTJXdWp1Zz09">https://us06web.zoom.us/j/81303208148?pwd=bHVQVXZuVmVYMkFOTjZuRTJXdWp1Zz09</a> Meeting ID: 813 0320 8148 Passcode: SOISO2	Room 204 Zoom link: <a href="https://us06web.zoom.us/j/81524883885?pwd=7D53U6Ex8F2mmiCghDOUfbS5EpOuRD.1">https://us06web.zoom.us/j/81524883885?pwd=7D53U6Ex8F2mmiCghDOUfbS5EpOuRD.1</a> Meeting ID: 815 2488 3885 Passcode: SOISO3	Room 301 Zoom link: <a href="https://zoom.us/j/92547601434?pwd=gjiqkukpLilaoHKWII6ron3AT0yJA.1">https://zoom.us/j/92547601434?pwd=gjiqkukpLilaoHKWII6ron3AT0yJA.1</a> Meeting ID: 925 4760 1434 Passcode: SOISO4	
08:00~09:00	(Registration Desk: 2nd floor(in front of the Room 203), Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea)				
09:00~10:30	<p><b>Keynote Speech 7</b> (09:00~09:30) <b>Tan Yigitcanlar</b> (Queensland University of Technology's, Australia) •Theme: Navigating Artificial Intelligence Adoption in Local Government</p> <p style="text-align: center;">•Venue: Room 204(Auditorium); Building R1, DGIST, 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea</p> <p style="text-align: center;">*Presiders: Andrzej Kubik(Silesian Univ. of Technology, Poland), Kwangho Jung(Seoul National Univ., Korea), Junghyun Yoon(Yeungnam Univ., Korea)</p> <p><b>Keynote Speech 8</b> (09:30~10:00) <b>Eric von Hippel</b> (MIT, USA) •Theme: User Innovation for the future [<i>Online Speech</i>]</p> <p style="text-align: right;">Zoom link: <a href="https://us06web.zoom.us/j/81524883885?pwd=7D53U6Ex8F2mmiCghDOUfbS5EpOuRD.1">https://us06web.zoom.us/j/81524883885?pwd=7D53U6Ex8F2mmiCghDOUfbS5EpOuRD.1</a> Meeting ID: 815 2488 3885 Code: SOISO3</p> <p><b>Keynote Speech 9</b> (10:00~10:30) <b>Fred Y. Phillips</b> (University of New Mexico, USA) •Theme: Finding Your Research Self: A letter to young management and economics scholars [<i>Online Speech</i>]</p> <p style="text-align: right;">Zoom link: <a href="https://us06web.zoom.us/j/81524883885?pwd=7D53U6Ex8F2mmiCghDOUfbS5EpOuRD.1">https://us06web.zoom.us/j/81524883885?pwd=7D53U6Ex8F2mmiCghDOUfbS5EpOuRD.1</a> Meeting ID: 815 2488 3885 Code: SOISO3</p>				
10:30~11:00	Coffee Break      ★ Coffee and dessert will be provided at 2nd floor(in front of the Room 203), Coffee Zone.				
11:00~12:30	<b>Session</b> Advancing ESG Innovation and	<b>Session</b> Future-Forward: Exploring the	<b>Session</b> Open Innovation Strategies for	<b>Session</b> Knowledge Management and	

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

7. 17(Thur)	Programs	*Venue: Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea			
	<p><b>Sustainable Practices in SMEs: Insights on Leadership, Culture, and Strategic Collaboration</b>  <b>Offline Chair: Kwangho Jung</b> (Seoul National University, Korea)  <b>Online Chair: Yuri Sadoi</b>(Meijo University, Japan)</p> <ul style="list-style-type: none"> <li>• Paper 1: "CEO Perspectives on ESG in Korean SMEs: A Q-Methodology Approach" by <b>Gi Ran Kim &amp; Kwangho Jung</b></li> <li>• Paper 2: "Exploring the Non-Linear Relationship Between Open Innovation and ESG-Focused Resilience in Complex Innovation Ecosystems" by <b>Pannyabhas Punnyadhanasakul &amp; Phaninee Naruetharadhol*</b></li> <li>• Paper 3: "Circular Economy and Innovative ESG in Global Fashion Industry" by <b>Seung-Hee Lee &amp; Kwangho Jung</b></li> <li>• Paper 4: "Comparative Study on Empty Houses Management Policies Based on MSSD - Focusing on the UK, France, Japan, and Korea" by <b>Cheol-ho Choi*</b>, <b>In-bang Song</b></li> </ul>	<p><b>Intersection of Emotion, Technology, and Decision-Making in Contemporary Markets</b>  <b>Chairs: Inhyouk Koo</b>(Sookmyung Women's University, Korea) &amp; <b>Antonio K.W.Lau</b>(Kyung Hee University, Korea)</p> <ul style="list-style-type: none"> <li>• Paper 1: "Human vs. AI: Exploring the Impact of AI-Personalization on Destination Image, Competitiveness and Visitor's Intention in Regenerative Tourism" by <b>Shahid Nawaz, Umer Zaman, Inhyouk Koo*</b></li> <li>• Paper 2: "The Impact of Digital Transformation on Environmental and Product Innovation: The Moderating Roles of Innovation Types" by <b>Ngo Ngoc Dieu, Antonio K.W.Lau*</b></li> <li>• Paper 3: "Harnessing Wisdom of Crowds for Idea Selection Accuracy: Insights from Scoring and Ranking Rules" by <b>Shijith Kumar PM, Inhyouk Koo, Ronny Estrella</b></li> <li>• Paper 4: "From Environment to Impact: How AI Capacity Drives Organizational Creativity, Decision-</li> </ul>	<p><b>Building Local Startup Ecosystems and Regional Revitalization</b>  <b>Chairs: Sanghyeok Park</b> (Gyeongsang National Univ., Korea) &amp; <b>Igors Kukjans</b>(Riga Technical University, Latvia)</p> <ul style="list-style-type: none"> <li>• Paper 1: "Multidimensional Entrepreneur Typology Analysis of Legacy Company CEOs in Korea's Southeast Region Using BERTopic: An Integrated Personality-Context-Behavior Approach" by <b>Sehoon Park, Dongphil Chun(Corr.)*</b></li> <li>• Paper 2: "A Blockchain-Enabled Taxation Framework for Implementing the Polluter-pays Principle in Transportation" by <b>Igors Kukjans*, Inguna Jurgelane-Kaldava, Maris Juruss</b></li> <li>• Paper 3: "Triangular Relationship Among Employer Branding, Organizational Reputation, and Job Pursuit Intention: Focus on University Students and Multinational Corporations" by <b>Han Nu Ngoc Ton*, Luu Thi Minh Anh, Trang Minh Tran-</b></li> </ul>	<p><b>Open Innovation in Biomedical Industry</b>  <b>Offline Chair: Eungdo Kim</b> (Chungbuk National Univ., Korea)  <b>Online Chair: John Benette John</b> (Manipal Academy of Higher Education, India)</p> <ul style="list-style-type: none"> <li>• Paper 1: "Analyzing the Impact of Open Innovation Factors on the Performance of Firms in Korean Bio Clusters: A Study on Key Characteristics and Outcomes" by <b>Narae Lee, Eungdo Kim*</b></li> <li>• Paper 2: "Evolution of platform innovation ecosystems under the dynamic capability perspective: a case study based on the Haier" by <b>Xiaoran Li, Yuxuan Xie*, Weixin Zhu</b></li> <li>• Paper 3: "Classifying Open Innovation Networks: 3D Perspectives and Productivity Insights" by <b>Jaehoon Yang, Eungdo Kim*, Junseok Hwang</b></li> <li>• Paper 4: "Open Innovation in Educational Settings: A Systematic Literature Review and Bibliometric Analysis" by <b>John</b></li> </ul>	

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

7. 17(Thur)	*Venue: Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea			
	<ul style="list-style-type: none"> <li>Paper 5: "Human Resource Development in IT industry in Sri Lanka - Its challenge and practices-" by <b>Aruna Gamage, Arnanda Kumara, Yuri Sadoi*, Toshiyuki Sadoi</b> <i>[Online]</i></li> </ul>	<p>Making, and Performance" by <b>Truc Thanh Phan, Phuong Van Nguyen*</b> <i>[Online]</i></p> <ul style="list-style-type: none"> <li>Paper 5: "Synergizing Corporate Foresight, Eco-Innovation, and Learning for Sustainable Infrastructure and Agile Green Supply Chains" by <b>Vu Van Nguyen, Phuong Van Nguyen*, Nhi Tran Thao Dinh, Huan Tuong Vo</b> <i>[Online]</i></li> </ul>	<p><b>Pham, Tran Vu</b></p> <ul style="list-style-type: none"> <li>Paper 4: Smart Firefighting Technology Patent-Based Analysis" by <b>KIM DAEHEON, Jeonghwan Jeon*</b></li> <li>Paper 5: "Antecedents and consequences of outside-in marketing capabilities with the mediating role of marketing innovations and moderating role of ambidexterity" by <b>Choong Il Lim &amp; Lee, Sungho</b></li> </ul> <p><b>Honor Discussor: Tan Yigitcanlar</b></p>	<p><b>Benette John, Dr. Sumukh S. Hungund*, Dr. Deepika Shetty</b> <i>[Online]</i></p> <ul style="list-style-type: none"> <li>Paper 5: "WHY THE POLICY COULD NOT ABSORBT BY SMES? – A VIEW THROUGH RECIPROCITY 'LENS' IN A CASE IN VIETNAM" by <b>Nguyen Manh Quan, Nguyen Manh Khang, Nguyen Le Thanh</b> <i>[Online]</i></li> </ul>
12:30~14:00	Lunch Break			
14:00~15:30	<p><b>Session</b> <b>Eco-innovation and Sustainable Business</b> <b>Chairs: Chavis Ketkaew(Khon Kaen Univ., Thailand), Phaninee Naruetharadhol(Khon Kaen Univ., Thailand) &amp; Dongwoo Kim (Sungkyunkwan University, Korea)</b></p> <ul style="list-style-type: none"> <li>Paper 1: "Complex Adaptive Systems and Circular Economy Business Model Resilience in Sustainable Innovation</li> </ul>	<p><b>Session</b> <b>Digital Innovation and Capabilities</b> <b>Online Chair: Nguyen Van Phuong (Vietnam National Univ., Vietnam)</b> <b>Offline Chair: Sangpil Yoon (Gyeongsang National Univ., Korea)</b></p> <ul style="list-style-type: none"> <li>Paper 1: "Aligning Organizational Culture with ESG Goals in Korean Small and Medium Enterprises" by <b>Gi-Ran Kim &amp; Kwangho Jung</b></li> <li>Paper 2: "A Model for Promoting Local Entrepreneurship centered on</li> </ul>	<p><b>Session</b> <b>Innovation for Sustainable Development: Current Status, Challenges, Opportunities, and Future Directions</b> <b>Chairs: Katarzyna Turoń(Silesian Univ. of Technology, Poland) &amp; Dongphil Chun(Pukyong National Univ., Korea)</b></p> <ul style="list-style-type: none"> <li>Paper 1: "Open Innovation in Micromobility – From Crowdsourcing to Co-Creating</li> </ul>	<p><b>Session</b> <b>What are Drivers of Innovation and Entrepreneurship?: Cases of South Korea and Other Countries &amp; Open Innovation Network in the Digital World</b> <b>Offline Chairs: Junghyun Yoon (Yeungnam Univ., Korea) &amp; Sanghyun Sung(GyeongSang National Univ., Korea)</b> <b>Online Chair: Ben Zhang (Huazhong Univ. of Science &amp; Technology, China)</b></p>

7. 17(Thur)	<b>Programs</b> <span style="float: right;">*Venue: Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea</span>			
	<p>Ecosystems" by <b>Pannyabhas Punnyadhanasaku &amp; Phaninee Naruetharadhol*</b></p> <ul style="list-style-type: none"> <li>Paper 2: "Unlocking new growth opportunities for medical device startups after IPO" by <b>Dongwoo Kim, Kwangsoo Shin*</b></li> <li>Paper 3: "Adoption Behavior of SMEs Entrepreneurs Towards Carbon Footprint Labels on Organic Food Products: A Business Model Innovation for Sustainability" by <b>Wongsatorn Worakittikul, Phaninee Naruetharadhol*</b></li> <li>Paper 4: "Flexible Work Arrangements and Employee Engagement in E-commerce – a literature review" by <b>Elina Pentjusa, Evita Kalmane-Pivkina [Online]</b></li> <li>Paper 5: "Assessment of the Impact of Social Media Marketing on Brand Engagement and Sales Performance of Online Service Companies in Sri Lanka" by <b>Stephan Harith Shamalka Wanasinghe, Ieva Andersone [Online]</b></li> </ul>	<p>Regional Universities" by <b>Sangpil Yoon</b></p> <ul style="list-style-type: none"> <li>Paper 3: "Jade can be polished by stones from other hills?Promotion strategy selection for video platforms in the age of social media" by <b>Ruihui Lin, Xiaoyu Chen</b></li> <li>Paper 4: "Enhancing Organizational Performance: The Role of Government Support, AI Capability, and Strategic Foresight" by <b>Linh Ho Ngoc Cao, Phuong Van Nguyen* [Online]</b></li> <li>Paper 5: "Enabling Business Model Innovation through Dynamic Capabilities: The Role of Corporate Foresight, Big Data, and Government Support in an Emerging Economy" by <b>Vu Van Nguyen, Phuong Van Nguyen*, Nhi Ngoc Y Vo, Huan Tuong Vo [Online]</b></li> </ul>	<p>Sustainable Solutions" by <b>Katarzyna Turoń, Andrzej Kubik</b></p> <ul style="list-style-type: none"> <li>Paper 2: "Corporate-Startup Collaboration Research Trends Analysis Using BERTopic: Identifying Research Topic Structure and Development Patterns through Time-Series Topic Modeling" by <b>Sehoon Park*, Dongphil Chun</b></li> <li>Paper 3: "GLASS CEILING, JOB STRAIN AND INTENTION TO QUIT AMONG FEMALE EMPLOYEES IN VIETNAM'S PUBLIC SECTOR" by <b>Han Nu Ngoc Ton, Tien Chau Thuy Huynh, Le Thi Ha Bao Khanh, Nhan Trong Nguyen, Thy Thi Bao Huynh</b></li> <li>Paper 4: "Open Innovation for Green Transition in Energy Sector: A Literature Review" by <b>Izabela Jonek-Kowalska*, Aneta Michalak [Online]</b></li> <li>Paper 5: "Public Private Partnerships. Case of Baltics" by <b>Anita Titova, Natalja Lace [Online]</b></li> </ul>	<ul style="list-style-type: none"> <li>Paper 1: "Process Analysis of Startup Support Programs in Korea Using Process Mining: A Focus on Growth Stages of Startup" by <b>Sung, Sanghyun &amp; Yoon, Junghyun</b></li> <li>Paper 2: "On Classification of Factors for Analysis of Conflict Triggers and Prevention Mechanisms in Organizations" by <b>Jana Ozolina, Sanita Šaitere, Elina Gaile-Sarkane</b></li> <li>Paper 3: "Drivers of Creative Deviance: From Perspective of Open Innovation and Entrepreneurship" by <b>Sanakulova, Rizakulovna Nodira &amp; Yoon, Junghyun</b></li> <li>Paper 4: "Exploring the growth of disruptive technology in the digital age from the perspective of patents: The evolution in the field of autonomous vehicle" by <b>Yakun Ji, Minghan Sun, Ben Zhang* [Online]</b></li> <li>Paper 5: "Classification of Sustainable Innovation in Corporate Venturing" by <b>Diana Smite [Online]</b></li> </ul>



## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

7. 17(Thur)	Programs	*Venue: Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea
15:30~16:00	<p>Coffee Break      ★ Coffee and dessert will be provided at 2nd floor(in front of the Room 203), Coffee Zone.</p> <p>&amp; SOI 2025 Award Committee Meeting(only for 6 committee members) in Room 204</p>	
16:00~17:00	<p style="text-align: center;"><b>General Meeting of SOI</b></p> <p>•Venue: Room 204(Auditorium); Building R1, DGIST, 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea *Presiders: KyungBae Park(SangJi University, Korea), Lace Natalja(Riga Technical University, Korea), Heungju Ahn(DGIST, Korea)</p> <ol style="list-style-type: none"> <li>1). Best Paper(Best Paper/Outstanding Paper) Award Ceremony</li> <li>2). Appreciation Plaque Ceremony for SOI 2025 10<sup>th</sup> Anniversary</li> <li>3). Important Decision Issues(including new board members inviting)</li> <li>4). Notice of Hosting SOI 2026 Conference in University of Messina by Prof. Vincenzo Corvello.</li> </ol> <p style="text-align: center;">-July 13 (Monday) to July 17 (Friday), 2026, University of Messina, Messina, Sicily, Italy</p> <p style="text-align: center;">-July 14 (Tuesday) to July 17 (Friday), 2026, Main conference days;</p> <p style="text-align: center;">-July 13(Monday), Open Innovation Academy 2026 Summer School Lecture Days;</p>	



7. 17(Thur)	<p><b>Programs</b> <span style="float: right;">*Venue: Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea</span></p>	
19:00~	<p style="text-align: center;"><b>Inviting Dinner</b></p> <p style="text-align: center;"><b>Venue: Dodongseowon Confucian Academy-Chunghyogwan Hall;</b>  <b>Address: 1, Dodongseowon-ro, Guji-myeon, Dalseong-gun, Daegu, Korea; Tel: 053-616-6407</b></p> <p style="text-align: center;">*Presiders: Phaninee Naruetharadhol(Khon Kaen Univ., Thailand) &amp; Sanghyun Sung((Gyeongsang National Univ., Korea), Xiaofei Zhao(DGIST, Korea)</p> <div style="text-align: center;">  </div> <p style="text-align: center;">*We will contact the participants separately.</p> <p style="text-align: center;">Inviting dinner is for thanks to the contribution of all special session chairs + contributors for organizing special sessions, general sessions and participants(limited seats, in advance application by sending the email to <a href="mailto:openinnovationtmc@dgist.ac.kr">openinnovationtmc@dgist.ac.kr</a>).</p> <p style="text-align: center;">*Bus will be prepared from conference venue → restaurant. After the dinner, bus will back from restaurant to DGIST global residence.</p>	

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

**July 17(Thursday)**

(Venue: 2nd floor(in front of the Room 203), Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea; Time: 08:00~09:00)

## Registration

- Registration Desk: 2nd floor(in front of the Room 203)




# SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

July 17(Thursday)

(Venue: Room 204(Auditorium); Building R1, DGIST, 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea; Time: 09:00~10:30)

## Keynote Speech

	<p><b>Keynote Speech 7</b> (09:00~09:30) <b>Tan Yigitcanlar</b> (Queensland University of Technology's, Australia) •Theme: Navigating Artificial Intelligence Adoption in Local Government</p> <p><b>*Allocated honor discussion session &amp; time: July 17, 11:00~12:30; Venue: Room 204</b></p>
	<p><b>Keynote Speech 8</b> (09:30~10:00) <b>Eric von Hippel</b> (MIT, USA) •Theme: User Innovation for the future <i>[Online Speech]</i></p> <p>Zoom link: <a href="https://us06web.zoom.us/j/81524883885?pwd=7D53U6Ex8F2mmlCghDOUfbS5EpOuRD.1">https://us06web.zoom.us/j/81524883885?pwd=7D53U6Ex8F2mmlCghDOUfbS5EpOuRD.1</a> Meeting ID: 815 2488 3885 Code: SOISO13</p>
	<p><b>Keynote Speech 9</b> (10:00~10:30) <b>Fred Y. Phillips</b> (University of New Mexico, USA) •Theme: Finding Your Research Self: A letter to young management and economics scholars <i>[Online Speech]</i></p> <p>Zoom link: <a href="https://us06web.zoom.us/j/81524883885?pwd=7D53U6Ex8F2mmlCghDOUfbS5EpOuRD.1">https://us06web.zoom.us/j/81524883885?pwd=7D53U6Ex8F2mmlCghDOUfbS5EpOuRD.1</a> Meeting ID: 815 2488 3885 Code: SOISO13</p>

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

**July 17(Thursday)**

(Venue: Room 202(Conference Room), Room 203(International Conference Hall), Room 204(Auditorium), Room 301(Main Conference Room); Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea; Time: 11:00~12:30)

### **Presentation (4 Sessions)**

▪Please check page 63~65 for more details.

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

**July 17(Thursday)**

(Venue: Room 202(Conference Room), Room 203(International Conference Hall), Room 204(Auditorium), Room 301(Main Conference Room); Building R1, DGIST, Daegu, Korea;  
Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea; Time: 14:00~15:30)

### **Presentation (4 Sessions)**

▪Please check page 65~66 for more details.

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

**July 17(Thursday)**

(Venue: Room 204(Auditorium); Building R1, DGIST, 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea; Time: 15:30~16:00)

### **SOI 2025 Award Committee Meeting (only for 6 committee members)**

#### **Committee members:**

1. Organizing President & 2025 Hosting Chair: Prof. Dr. JinHyo Joseph Yun
2. Ex-Executive President: Prof. KwangHo Jung
3. Executive President: Prof. SangDon Lee
4. Hosting Chair of SOI 2024: Prof. Natalja Lace
5. Hosting Chair of SOI 2026: Prof. Vincenzo Corvello
6. BM session Chair: Prof. Junhyun Eune

\*Or agents appointed by these memebtrs

**July 17(Thursday)**

(Venue: Room 204(Auditorium); Building R1, DGIST, 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea; Time: 16:00~17:00)

## **General Meeting of SOI**

### **▪ Awards Ceremony**

• We will award the superior presentation winners with "Best Paper(Best Paper/Outstanding Paper) Award".

### **▪ Important Decision or Report Issues**

• Approval of diverse board members additional inviting(the following list is the additional inviting and appointment of 2025)

#### **\*Board Members Inviting**

- Ieva Kustova (Riga Technical University, Latvia)
- Sungho Lee (University of Seoul, Korea)
- Katarzyna Turoń (Silesian University of Technology, Poland)
- Jooyeon Oh (Korea University, Korea)
- Igors Kukjans (Riga Technical University, Latvia)
- Han Nu Ngoc Ton (Vietnam National University, Vietnam)
- Dohyoung Kim (Korea Institute of Energy Technology Evaluation and Planning, Korea)
- Andrzej Kubik (Silesian University of Technology, Poland)
- Justina Hudenko (Riga Technical University, Latvia)
- Minhan Kim (Sangmyung University, Korea)
- Dongwoo Kim (Sungkyunkwan University, Korea)
- Pham Thanh Nga (National Economics University, Vietnam)
- Xinwei Ye (Nanjing Vocational University of Industry Technology, China)



## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

▪ **Notice of Hosting SOI 2026 Conference in University of Messina by Prof. Vincenzo Corvello.**

-July 13 (Monday) to July 17 (Friday), 2026, University of Messina, Messina, Sicily, Italy

\*July 14 (Tuesday) to July 17 (Friday), 2026, Main conference days;

\*July 13(Monday), Open Innovation Academy 2026 Summer School Lecture Days;



## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

July 17(Thursday)

(Venue: "Dodongseowon Confucian Academy-Chunghyogwan Hall", 1, Dodongseowon-ro, Guji-myeon, Dalseong-gun, Daegu, Korea; Tel: 053-616-6407; Time: 19:00~)

### Inviting Dinner

\* Inviting dinner is for thanks to the contribution of all special session chairs + contributors for organizing special sessions, general sessions and participants(in advance booked for 50 seats & more possible).



\*We will contact the participants separately.

\*Inviting dinner is for thanks to the contribution of all special session chairs + contributors for organizing special sessions, general sessions and participants(**limited seats, in advance application by sending the email to [openinnovationmc@dgist.ac.kr](mailto:openinnovationmc@dgist.ac.kr)**).

\*Bus will be prepared from conference venue → restaurant. After the dinner, bus will back from restaurant to DGIST global residence.

## **SOI 2025 10th Anniversary Conference**

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

# SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

Venue: Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero,  
Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea

July 18 (Friday)

## Program Time Schedule & Contents

## **SOI 2025 10th Anniversary Conference**

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

7.18(Fri)	Programs <span style="float: right;">*Venue: Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea &amp; Cultural Tour</span>				
Time	Room 202	Room 203	Room 204	Room 301	
08:00~09:00	<b>Registration (Registration Desk: 2nd floor(in front of the Room 203), Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea)</b>				
09:00~10:30	<p><b>Poster Session</b></p> <p><b>Chairs: Natalja Lace(Riga Technical University, Latvia) &amp; Heungju Ahn(DGIST, Korea)</b></p> <ul style="list-style-type: none"> <li>Paper 1: "Decision-making Styles of Top Management Teams and its Impact on Financial Outcomes of Enterprises: Insights from Latvia" by <b>Rasma Pīpiķe, Elina Gaile-Sarkane</b></li> <li>Paper 2: "Fostering Innovation in the News Media Industry: Exploring Creative Coding Workshops as Catalysts for Creativity and Skill Transfer" by <b>Deniss Sceulovs, Jana Geldner, Viktorija Babica</b></li> <li>Paper 3: "Navigating Complexities in Virtual Consumer Behavior: Uses and Gratifications Theory-Driven</li> </ul>	<p><b>Poster Session</b></p> <p><b>Chairs: Han Nu Ngoc Ton (Vietnam National University, Vietnam) &amp; Byung Yong Hwang(KISTEP, Korea), Saimi Woo(BISTEP, Korea) &amp; Heonggu Lee(OSP, Korea)</b></p> <ul style="list-style-type: none"> <li>Paper 1: "Exploring the relationship between quality of employment and company performance" by <b>Angelina Roša*, Natalja Lace</b></li> <li>Paper 2: "Artificial Intelligence and Firm Idiosyncratic Risk: The Role of Ethical Governance" by <b>Weian Li, Menglan Tang*</b></li> <li>Paper 3: "Adoption of Ideas from Innovation Contests – Evidence from a Korean Financial Institution" by <b>Inhyouk Koo, Shijith Kumar PM*, Ronny</b></li> </ul>	<p><b>Poster Session</b></p> <p><b>Chairs: Kyungbae Park(Sangji University, Korea) &amp; KwangHo Jung(Seoul National Univ., Korea)</b></p> <ul style="list-style-type: none"> <li>Paper 1: "Transforming Consumer Behavior: Utilizing Uses and Gratifications Theory to Promote Sustainable Economic Growth" by <b>Ilze Jankovska*, Deniss Sceulovs</b></li> <li>Paper 2: "Explaining the foundation and change of product meaning by the social cognitive dynamic theory in a product market: Applying in the bottled water and water purifier product market in Korea" by <b>Dong Hawn Kim &amp; Lee, Sungho</b></li> <li>Paper 3: "The Impact of</li> </ul>	<p><b>Poster Session</b></p> <p><b>Chairs: Minhan Kim(Sangmyung University, Korea) &amp; SungYong Choi(Hanyang Univ., Korea)</b></p> <ul style="list-style-type: none"> <li>Paper 1: "Disruptive Technology Identification Based on the Open Innovation Network: A Case of Virtual Travel" by <b>Ben Zhang</b></li> <li>Paper 2: "Analysis of effects before and after enactment of the National R&amp;D Innovation Act in South Korea" by <b>Byung Yong Hwang*, Sin Lee Kim, Eun Song Bae</b></li> <li>Paper 3: "Analysis of open innovation performance and influencing factors of the Korean biopharmaceutical industry in bioclusters" by <b>MiSeon Kim,</b></li> </ul>	<p><b>Evaluation Method:</b></p> <p>Each visitor will receive three heart-shaped memos upon entering each room. After viewing the poster presentations, visitors can select their top two posters in each room and attach the heart memos to those posters. The poster session chairs will collect and tally</p>

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

7.18(Fri)	Programs <span style="float: right;">*Venue: Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea &amp; Cultural Tour</span>				
<p><b>*Posters are welcome to be set up in the conference rooms from July 15 until the poster session begins.</b></p>	<p>Innovations for Sustainable Business Practices” by <b>Ilze Jankovska</b></p> <ul style="list-style-type: none"> <li>• Paper 4: “A Study on the Automatic Patent Valuation by using Large Language Models” by <b>Hun Park*, Jongtaik Lee, Sungtae Yoo</b></li> <li>• Paper 5: “E-Governance in Transition - Lessons from Latvia for a Digitally Empowered Future” by <b>Janis Caune</b></li> <li>• Paper 6: “Open innovation of firms in the semiconductor value chain; Global patent analyses and case studies of firms in South Korea, Japan, and Germany” by <b>JinHyo Joseph Yun*, (Andreas Pyka)*, Xiaofei Zhao, Yuri Sadoi, Heongu Lee</b></li> </ul>	<p><b>Estrella, Hojung Ha**</b></p> <ul style="list-style-type: none"> <li>• Paper 4: “Factors Affecting Corporate Efficiency in Korean Biopharmaceutical Industry - Focusing on Open Innovation types by Business Model” by <b>Jaehoon Yang, Yun Gil, Roh, Eungdo Kim*, Junseok Hwang</b></li> <li>• Paper 5: “An Overview Analysis of the Patent Trends of Foreign Patentees Based on Registered Patents in Korea” by <b>YouEil KIM, EuiSeob JEONG</b></li> <li>• Paper 6: “Individual AI Mechanism Design Based on the Open Innovation Dynamics” by <b>JinHyo Joseph Yun*, Xiaofei Zhao, Heungju Ahn*, Kyungbae Park</b></li> </ul>	<p>Technological Regimes on Firm’s Innovation Activities” by <b>YuCheong Chon, Kwangsoo Shin*</b></p> <ul style="list-style-type: none"> <li>• Paper 4: “The Effects of External Cooperation on Innovation Performance of Information Technology Firms in South Korea” by <b>Daeyu Kim*, Seunghoo Jin</b></li> <li>• Paper 5: “Capitalization of Contemporary Art: The Reverse Structure of Open Innovation, and the Price Paradox” by <b>JinHyo Joseph Yun*, Juhyun Eune*, Xiaofei Zhao, Giovanna Del Gaudi, Valentina Della Corte, Thierry Burger-Helmchen</b></li> </ul>	<p><b>Eungdo Kim*</b></p> <ul style="list-style-type: none"> <li>• Paper 4: “Entrepreneurship in Hospital, Emerge of Doctorpreneur” by <b>Kwangsoo Shin; Harry Jeong*</b></li> <li>• Paper 5: “Key Factors Impacting Cyber Resilience in SMEs: The Role of Open Innovation in Building Cybersecurity Awareness and Collaborative Defense Strategies” by <b>Alona Bahmanova, Natalja Lace</b></li> <li>• Paper 6: “The Role of Business Models in Bridging Technology and Market: Mathematical Modeling and Its Application to Artificial Intelligence” by <b>JinHyo Joseph Yun*, Xiaofei Zhao, Heungju Ahn*, Kyungbae Park</b></li> </ul>	<p>the final results.</p>
10:30~11:00	<p>Coffee Break <span style="float: right;">★ Coffee and dessert will be provided at 2nd floor(in front of the Room 203), Coffee Zone.</span></p>				
11:00~11:30	<p><b>Poster Presentation Award Ceremony</b></p> <p>•Venue: Room 204(Auditorium); Building R1, DGIST, 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea            *Presiders: EuiSeob JEONG(KISTI, Korea), Hun Park(KISTI, Korea), Deniss Sceulovs(Riga Technical Univ., Korea), Natalja Lace(Riga Technical Univ., Korea)</p>				

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

7.18(Fri)	<b>Programs</b> *Venue: Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea & Cultural Tour	
12:00~17:00	<p style="text-align: center;"><b>Cultural Tour "Haeinsa Temple, Hapcheon"</b></p> <p style="text-align: center;">Address: 122, Haeinsa-gil, Gaya-myeon, Hapcheon-gun, Gyeongsangnam-do, 50200 Korea; Tel: 0507-1359-3000</p> <p style="text-align: center;">*Presiders: Sungyong Choi(Hanyang Univ., Korea) &amp; Byung Yong Hwang(KISTEP, Korea), Han Nu Ngoc Ton(International University, VNU-HCMC, Vietnam)</p> <div style="text-align: center;">  </div> <p style="text-align: center;">1. 12:00~ DGIST -&gt; Haeinsa Temple, Hapcheon</p> <p style="text-align: center;">2. 13:00~Lunch will be provided at Kukil Restaurant, 19-2, Chiin 1-gil, Gaya-myeon, Hapcheon-gun, Gyeongsangnam-do, 50200, Korea; Tel: 055-932-7386)</p>	



## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

7.18(Fri)	Programs	*Venue: Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea & Cultural Tour
	<div data-bbox="474 331 1601 625"></div> <p data-bbox="772 630 1384 694">3. 14:00~ Participants may act for themselves, • Participants can go to another place whenever you would like to.</p> <p data-bbox="846 734 1276 762">4. 17:00~ (Back to → DGIST Global Residence)</p> <p data-bbox="660 805 1460 890">5. Only for the First 50 applicants who had sent the applications can participate in the tour. Contact: <a href="mailto:openinnovationtmc@dgist.ac.kr">openinnovationtmc@dgist.ac.kr</a> ※Bus, Lunch &amp; water will be provided;</p>	

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

**July 18(Friday)**

(Venue: 2nd floor(in front of the Room 203), Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea; Time: 08:00~09:00)

## Registration

- Registration Desk: 2nd floor(in front of the Room 203)

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

**July 18(Friday)**

(Venue: Room 202(Conference Room), Room 203(International Conference Hall), Room 204(Auditorium), Room 301(Main Conference Room); Building R1, DGIST, Daegu, Korea;  
Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea; Time: 09:30~11:30)

**Poster Session, Common Evaluation  
(4 Sessions)(09:00~10:30)  
&  
Award Ceremony(in Room 204(Auditorium))  
(11:00~11:30)**

▪Please check page 79~80 for more details.

\*Posters are welcome to be set up in the conference rooms from July 15 until the poster session begins.

July 18(Friday)

(Venue: “Haeinsa Temple, Hapcheon”, Time: 12:00~17:00)

## Cultural Tour “Haeinsa Temple, Hapcheon”



1. 12:00~ DGIST -> Haeinsa Temple, Hapcheon
2. 13:00~Lunch will be provided at Kukil Restaurant, 19-2, Chiin 1-gil, Gaya-myeon, Hapcheon-gun, Gyeongsangnam-do, 50200, Korea; Tel: 055-932-7386)



3. 14:00~ Participants may act for themselves,
  - Participants can go to another place whenever you would like to.
4. 17:00~ (Back to → DGIST Global Residence)
5. Only for the First 50 applicants who had sent the applications can participate in the tour.

Contact: [openinnovationtmc@dgist.ac.kr](mailto:openinnovationtmc@dgist.ac.kr); ※Bus, Lunch & water will be provided;

## **SOI 2025 10th Anniversary Conference**

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

# Keynote Speech

## *July 15(Tuesday)*

(Venue: Room 204(Auditorium); Building R1, DGIST, 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea; Time: 15:00~16:30)

**Venni V Krishna** (University of New South Wales, Australia)

•Theme: Open Science and its Enemies: Towards a sustainable and inclusive development in the 21st Century

**Jason Potts** (RMIT University, Australia)

•Theme: Contribution Systems: A New framework for open innovation

**Weian Li** (Nankai University, China)

•Theme: Green Governance and Evaluation

## *July 16(Wednesday)*

(Venue: Room 204(Auditorium); Building R1, DGIST, 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988; Time: 11:40~13:10)

**JinHyo Joseph Yun** (DGIST, Korea)

•Theme: Post Capitalism under Digital Transformation: The Way to Entrepreneurial State with Open Innovation Dynamics

**Vincenzo Corvello** (University of Messina, Italy)

•Theme: Artificial Intelligence and the organizer of the future: individuals, groups, ecosystems

**Biung-Ghi Ju** (Seoul National University, Korea)

•Theme: Climate Justice: Historical Accountability vs. International Paretianism

## *July 17(Thursday)*

(Venue: Room 204(Auditorium); Building R1, DGIST, 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988; Time: 09:00~10:30)

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

**Tan Yigitcanlar** (Queensland University of Technology's, Australia)

- Theme: Navigating Artificial Intelligence Adoption in Local Government

**Eric von Hippel** (MIT, USA)

- Theme: User Innovation for the future

**Fred Y. Phillips** (University of New Mexico, USA)

- Theme: Finding Your Research Self: A letter to young management and economics scholars

# Open Science and its Enemies: Towards a sustainable and inclusive development in the 21st Century

**Venni V Krishna**

*Professor, School of Humanities and Languages*

*UNSW, Sydney, Australia*

## **Abstract**

Knowledge as a public good, scientific peer review of science, the prominence of open publications, and the emphasis on professional recognition and scientific autonomy have been the hallmark of science in the past three centuries. This paradigm of open science, in varying forms and manifestations, contributed to the progress of systematic knowledge at the service of humankind over the last three centuries. Entering the third decade of the 21st century, the social contract between science and society is undergoing major changes. In fact, the whole paradigm of open science and its social contract is being challenged by various "enemies" or adversaries such as (a) market-based privatized commercial science, (b) industry 4.0 advanced technologies, and (c) a "new iron curtain" on the free flow of science data and information due to regional conflicts and wars. The escalation of regional conflicts and ongoing wars, particularly in regions such as Israel and Palestine, and Russia and Ukraine, coupled with the intricate dynamics within geopolitical groupings like AUKUS and QUAD, introduces formidable challenges and crises for the realms of open science and innovation. The intricate web of geopolitical tensions not only disrupts regional stability but also reverberates globally, impacting the collaborative and transparent ethos that underpins open science and innovation.

Humanitarian crises, displacement of researchers, and the diversion of resources toward defense and recovery efforts can hinder the progress of scientific research and collaborative innovation. Moreover, the breakdown of diplomatic ties and the imposition of sanctions may impede the flow of scientific knowledge across borders, hindering the principles of open science.



# Contribution Systems: A new framework for open innovation

**Professor Jason Potts**

*Director, RMIT Blockchain Innovation Hub  
School of Economics, Finance and Marketing  
RMIT University*

## **Abstract**

Contribution systems is a new theoretical framework recently developed by Rennie and Potts (2025) that studies a new class of distributed cooperation mechanisms that are based on intersubjective consensus about value and the use of algorithmic governance. In this talk I show how these new institutional technologies can be used to guide and scale open innovation.

## Green Governance and Evaluation

**Weian Li**

*( China Academy of Corporate Governance, Nankai University, Tianjin 300071, China )*

**Abstract:**

In recent years, environmental issues have escalated in severity, making the protection of the ecological environment and the promotion of green development pressing challenges on a global scale. However, current green initiatives in various countries are often limited to spontaneous green management and administration by singular entities, lacking a cohesive top-level governance framework. There is an urgent need for guidance among governments, businesses, and social organizations regarding the principles and assessments of green governance. This report examines the theoretical and practical dimensions of green governance while proposing a foundational framework and actionable guidelines. Furthermore, it develops a corresponding evaluation system for listed companies, identified as pivotal actors in green governance, aiming to provide insights for harmonizing the green initiatives of diverse stakeholders and fostering the integration of green development principles and practices.

# Post Capitalism under Digital Transformation: The way to Entrepreneurial State with Open Innovation Dynamics

**JinHyo Joseph Yun**

*(DGIST, and Open Innovation Academy)(First, and Corr.)*

## **Abstract**

With digital transformation, world economy system is dramatically evolving from capitalism to post-capitalism. First characteristic of the post capitalism is not the deregulation but regulation conversion, which is the engine of triggering new industries in the digital transformation and AI era. Second, Common good, or Common good based economy is emerging as new possibility in the market failure or system failure at the majority of non-urban areas of world systems. Third, the way to an entrepreneurial state under open innovation dynamics requires maintaining a dynamic balance among social, market, and closed forms of open innovation. Additionally, a reflective basic income will be required for the path toward an entrepreneurial state, especially in the era of digital transformation.

Open innovation dynamics are motivating the evolution from capitalism to post-capitalism including 1) from deregulation to regulation conversion, 2) from the tragedy of common to comedy of common, and 3) from the way to entrepreneurial state with open innovation dynamics.

## Artificial Intelligence and the organizer of the future: individuals, groups, ecosystem

**Vincenzo Corvello (Italy)**

• *Associate Professor, University of Messina, Italy*

### **Abstract**

The advent of emerging technologies such as artificial intelligence (AI), virtual reality (VR), and digital collaboration platforms is reshaping the way individuals interact, collaborate, and form group dynamics. This keynote explores the transformative effects of these technologies on both traditional and virtual teams, examining how they influence communication patterns, decision-making processes, leadership structures, and group cohesion. The presentation will highlight the benefits of these technologies in enhancing efficiency, creativity, and inclusivity in group settings. At the same time, it addresses potential challenges, such as the risk of digital fatigue, power imbalances, and the erosion of trust in tech-mediated interactions. By understanding the evolving nature of group dynamics in a tech-driven world, we can better leverage these innovations to foster more effective and equitable collaborations across diverse domains.

# Climate Justice: Historical Accountability vs. International Paretianism

**Biung-Ghi Ju**

*Professor, Department of Economics, Seoul National University*

*Director, Center for Distributive Justice*

## Abstract

In an economic model of climate agreement, we investigate international protocols supported by two normative principles - historical accountability and international Paretianism. Historical accountability penalizes countries with historical emissions by limiting their (minimal) rights for future emissions allowances as much as their historical emissions. On the contrary, international Paretianism provides a forward-looking perspective and requires that the agreement should leave all countries at least as well off "as they are in the disagreement outcome." Unfortunately, we show that the two principles are incompatible; there is a trade-off between them. The main results characterize international protocols for climate agreement, which are supported by each of the two principles, together with other standard axioms in the literature of fair allocation. We compare allocations by these rules and compare them also with the Kyoto Protocol and the Paris Agreement. We show that the international protocols satisfying either historical accountability or international Paretianism differ drastically from the two agreements made in Kyoto and Paris in that they allocate negative emissions allowances to advanced countries in Europe or North America, or both, with outstanding historical emissions and relatively low human damages from climate disasters. These negative allowances require them to achieve an immediate net-zero society and, in addition, to contribute to even further GHG reduction outside their state boundaries (e.g., through funding for energy transition in developing countries).

# Navigating Artificial Intelligence Adoption in Local Government

**Tan Yigitcanlar (Australia)**

- *Professor at the Queensland University of Technology's School of Architecture and Built Environment, Australia*

## **Abstract**

This keynote speech will explore the evolving role of Artificial Intelligence (AI) in local government, drawing insights from a comprehensive five-decade scientometric analysis, real-world implementation case studies, and city managers' perceptions. It will, first, trace the evolution of AI in local governance, highlighting emerging trends and the state-of-the-art applications that are reshaping urban management. It will then delve into best practices for AI adoption, offering practical lessons from global examples where local governments have successfully integrated AI into their operations to enhance efficiency and decision-making. Finally, it will capture city managers' perspectives on the potential, limitations, and strategic choices associated with AI deployment in local governments. This keynote speech will synthesise the recent research findings, providing a nuanced understanding of AI's impact on urban governance and offering actionable insights for practitioners seeking to navigate the opportunities and challenges of AI adoption in local government settings.

## User Innovation for the future

**Eric von Hippel (USA)**

*Professor of Management of Innovation and Engineering Systems, MIT, USA*

**Abstract:**

Today, it is understood that users, rather than producers, are the source of most important novel products.

In this talk, I first briefly document the importance of DIY innovation by users, and then go on to explain how user-developed products with commercial potential are increasingly inexpensive for producers to identify and commercialize.

## Finding Your Research Self: A letter to young management and economics scholars

**Fred Phillips**

*State University of New York, Stony Brook  
and TANDO Institute*

### **Abstract**

Finding a young management/econ researcher's passion and talents – and making a success of these – involves several difficult decisions. This talk addresses these decisions, offering helpful guidance on matters of theory, problem identification, research approaches, and personal qualities.

Keywords: Management; Economics; Theory; Journals; Academic careers



## **SOI 2025 10th Anniversary Conference**

**July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea**

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

# SOI 2025 10th Anniversary Conference

July 15(Tue.)~18(Fri.), 2025, Main Conference Days

Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon,  
Dalseong-gun, Daegu, 42988, Korea

July 15 (Tuesday)

## **SOI 2025 10th Anniversary Conference**

**July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea**

***July 15 (Tuesday)***

---

**Venue: Room 202, Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea, 17:00~18:30**

**Digital Innovation and Governance**

**Online Chairs: Lei Ma(Nanjing Univ. of Science and Technology, China) & Zheng Liu(Greenwich Univ., UK)**

**Offline Chair: Deokho Cho(Daegu Univeristy, Korea)**

- Paper 1: "The Influence of Carbon Perception on Sustainable Behaviors: A Multigroup Moderation Analysis of Openness to Technology Adoption" by **Sasichakorn Wongsachia, Teerapong Pienwisetkaew, Chavis Ketkaew\***
- Paper 2: "Dynamic Platform: emergent and deliberate strategies" by **Junic Kim, Shanghe Ahn**
- Paper 3: "Artificial Intelligence Age and Spiritual Revolution" by **Deokho Cho**
- Paper 4: "A study of navigating knowledge search and appropriability risk in open-source platforms" by **Junlin Zhu, Lei Ma\*, Zheng Liu, Wenyan Wei [Online]**
- Paper 5: "Circular economy innovation in SMEs: A case study" by **Sirirat Sae Lim, Yun Chieh Chen, Zheng Liu\* [Online]**

***July 15 (Tuesday)***

---

**Venue: Room 203, Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea, 17:00~18:30**

**Key Issues in Government Innovation in the AI Era**

**Offline Chairs: Dongwook Kim(Seoul National Univ., Korea), Justina Hudenko(Riga Technical University, Latvia)**

- Paper 1: "Advancing Public Administration through Information Governance: An Academic Study in the AI Era" by **Hanbyul Choi, Dongwook Kim**

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

- Paper 2: "Decentralized Decision-Making in the Shadow of "Hierarchy": How Informal Hierarchy Differences Induce Deviant Voting Behavior" by **Wenchang Li, Runhui Lin**
- Paper 3: "Application of Sustainable Infrastructure Criteria at Publicly Owned Infrastructure Management Companies" by **Ieva Kustova, Justina Hudenko, Natalja Lace**
- Paper 4: "Comparative Study of AI National Strategies in Major Countries: Focusing on the UK, France, China, and South Korea" by **Sen Zhan & Choong-Sik Chung**
- Paper 5: "Exploring Openness within European Universities Alliances: Challenges and Opportunities of Open Innovation and Open Science" by **Krista Opmene, Arturs Zeps, Inga Lapina** *[Online]*

### *July 15 (Tuesday)*

---

**Venue: Room 204, Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea, 17:00~18:30**

#### **Economics of Open Innovation Dynamics**

**Offline Chairs: JinHyo Joseph Yun(DGIST, Korea)**

**Online Chair: Xinwei Ye(Nanjing Vocational University of Industry Technology, China)**

- Paper 1: "Social Economy and Social Open Innovation in Different Contexts; Findings from Cities in South Korea, Italy, and Poland" by **JinHyo Joseph Yun\***, **Xiaofei Zhao**, **Inhyouk Koo\***, **Valentina Della Corte**, **Giovanna Del Gaudio\***, **Katarzyna Turon\***
- Paper 2: "Exploring the influence of leaders and peers on job performance" by **Choukang Chiu, Chieh-Peng Lin**
- Paper 3: "Development of a theoretical framework to Evaluate and Rank the Innovation Efficiency of OECD countries" by **Ali Murtaza Matto, Jeonghwan Jeon\***
- Paper 4: "The implementation of open innovation in energy recovery towards sustainable development" by **Radosław Wolniak** *[Online]*
- Paper 5: "The Co-evolution Strategy of Government, industrial Internet Platform and SMEs in

Regional industrial Internet Ecosystem: The Role of Government Subsidies and Value Co-creation" by **Xinwei Ye\***, **Lan Du**, **Lei Ma**, **Zheng Liu** *[Online]*

### ***July 15 (Tuesday)***

---

**Venue: Room 301, Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea, 17:00~18:30**

### **Innovation and Business Models in Emerging Economies**

**Online Chairs: Elina Gaile-Sarkane(Riga Technical University), Inga Lapina(Riga Technical University)**

**Offline Chair: Jaeho Jung(Korea University, Korea)**

- Paper 1: "Transformation of Standardization Value from Measurement Reference to Best Practice Benchmark" by **Arta Pilena-Dalberga**, **Inga Lapina**
- Paper 2: "Intuitional Characteristics and Roll-Call Voting in EU AI Act" by **Young-hwan Jeon**, **Meeyoung Park\***
- Paper 3: "A Data-Driven Approach to Copper Price Forecasting: Integrating Macroeconomic Indicators with Time Series and Machine Learning Models" by **Nawon Park**, **Jaeho Jung**
- Paper 4: "Comparative Study of Artificial Intelligence Regulations: Focusing on the EU and US" by **Meeyoung Park**, **Young-hwan Jeon\***
- Paper 5: "Increasing the importance of biofuels in the global energy mix as a determinant of innovation and changes in research methodology" by **Bożena Szczucka-Lasota\***, **Tomasz Węgrzyn**, **Abilio Silva** *[Online]*

# The Influence of Carbon Perception on Sustainable Behaviors: Tailoring Sustainability Strategies Based on Individuals' Levels of Openness to Technology Adoption

**Sasichakorn Wongsaichia**

*Lecturer, International College, Khon Kaen University, Thailand, Thai*

**Teerapong Pienwisetkaew**

*Lecturer, International College, Khon Kaen University, Thailand, Thai*

**Chavis Ketkaew\***

*Associate Professor, Ph.D., Center for Sustainable Innovation and Society, Khon Kaen University, Thailand, Thai*

## Abstract

This study explores how Perceived Carbon Impact (PCI) influences Sustainable Behavior (SB) by examining the mediating roles of Environmental Awareness (EA) and Intention to Adopt Green Technology (IAGT). It also investigates how Openness to Technology Adoption (OTA) moderates these relationships. The research addresses the following key questions: (1) How does PCI directly and indirectly shape SB through EA and IAGT? (2) How do different levels of OTA influence these pathways, particularly when comparing Traditionalists and Technology Enthusiasts? By integrating the Value-Belief-Norm (VBN) theory and technology adoption models, this study provides a nuanced understanding of the mechanisms driving sustainable behavior.

Global concerns about carbon emissions and climate change highlight the need for urgent individual and collective actions to meet sustainability goals (CICERO, 2024; UNEP, 2023). The Value-Belief-Norm (VBN) theory explains how environmental values and beliefs guide pro-environmental behavior through internalized norms (Stern, 2000). PCI, defined as an individual's perception of their carbon footprint and its environmental consequences, is a critical driver of these norms, influencing decisions in energy consumption, transportation, and waste management (Whitmarsh et al., 2011). Mediators like EA and IAGT amplify this effect, with EA fostering environmental concern and IAGT reflecting readiness to engage with eco-technologies (Chen & Tung, 2014). The moderating role of OTA highlights contrasting pathways: Traditionalists emphasize awareness and personal responsibility, while Technology Enthusiasts adopt direct, technology-driven solutions (Jansson, 2011; Franke et al., 2019).

# Dynamic Platform: emergent and deliberate strategies

**Junic Kim**

*Prof. Ph.D., Konkuk University, Republic of Korea*

**Shanghe Ahn`**

*Ph.D. Candidate, Konkuk University, Republic of Korea*

## Abstract

This study aims to explore how platform companies dynamically integrate deliberate and emergent strategies in response to rapidly changing digital environments. While previous research has predominantly treated these two strategic approaches as separate or dichotomous, this study emphasises their interaction and co-evolution within platform ecosystems. By focusing on how companies adapt strategically through both planned initiatives and adaptive responses, the paper seeks to provide insights into sustaining competitive advantage in volatile and network-dependent industries.

Building on this purpose, the central research question guiding this study is: *How do platform companies balance and transition between deliberate and emergent strategies to ensure sustainable competitive advantage in rapidly changing platform ecosystems?* This question further leads to an exploration of the conditions under which such strategic integration occurs, the mechanisms enabling adaptability, and the implications for long-term success in volatile digital markets.

The literature on corporate strategy is vast and complex, making it impossible to cover all perspectives and positions in a single review. Researchers often see strategies as consisting of such elements as business objectives, visions, and explicit plans to accomplish them and attain success (Lubatkin et al., 2006; Raisch & Birkinshaw, 2008; Tushman & O'Reilly, 1996; Vinekar et al., 2006). Although various frameworks can be employed to analyze a corporate strategy, one useful approach is to view it in terms of creative and prudent strategies. Nag et al. (2007) see strategic management as involving actions taken by top managers to improve a company's performance in the external environment, utilizing resources to achieve the company's main goals and initiatives. This definition is significant because it recognizes that the actual strategy adopted by a company is a combination of planned and deliberate strategies with emergent strategies that arise in response to changing circumstances



# Artificial Intelligence and Spiritual Revolution

**Deokho Cho**

*(Emeritus Professor at Daegu University, Korea)*

*(General Secretary of World Spirit Forum)*

## Abstract

The rapid advancement of artificial intelligence (AI) is transforming every facet of modern society. Beyond mere technological progress, these changes are reshaping human existence, values, and the very structure of our consciousness. This study aims to highlight the urgent need for a new spiritual paradigm—a 'spiritual revolution'—in response to the AI era, and to outline a clear direction forward. Keywords: Reverse Subscription Economy, Youth Pension, Free from Harming, Korean Wave Park, Fourth Industrial Revolution, Fifth Spiritual Revolution.

The characteristics of most civil servants is that when they want to do something new, they always check if there is a precedent. If there is no precedent, they look for samples in other regions. If that doesn't work, they check if there are any cases in other countries. If there is none, they give up. If they do that, they will never be able to create anything creative. These days, "Subscribe and Like" is a trend on YouTube. If you share information through YouTube and like the content, click "Subscribe" or "Like" and as the number of views increases, the value increases relatively, and advertising revenue is generated accordingly. However, if you subscribe, you must pay a certain usage fee depending on the program provider, but if it is for commercial purposes.

However, from the user's perspective, "Reverse Subscription is Better" presented in this article is better. "Reverse Subscription" is a concept that is the opposite of subscription economy. Instead of paying a certain amount every month when using goods or services, you receive support. Therefore, if this system can be established, users will receive a certain amount every month when using goods or services, which can be considered a very attractive system from the user's perspective. However, the question remains as to how to procure the necessary funds.

Animals have hardly changed since they were 10,000 years ago. However, humans have constantly pursued a better world. This article begins with the fundamental question of whether the results that humans have pursued so far are desirable. Why do we need democracy? Why do we pursue a market economy? Why do we pursue sustainable development?

## A Study of Navigating Knowledge Sourcing and Appropriability Risk in Open-Source Platform

**Junlin Zhu**

*School of Intellectual Property, Centre for Innovation and Development, Nanjing University of Science and Technology, Nanjing 210094, Jiangsu Province, China.*

**Lei Ma (Corr.)**

*School of Public Affairs, Centre for Innovation and Development, Digital Economy Research Institute, Nanjing University of Science and Technology, Nanjing 210094, Jiangsu Province, China.*

**Zheng Liu**

*Greenwich University, UK.*

**Wenyan Wei**

*School of Intellectual Property, Centre for Innovation and Development, Nanjing University of Science and Technology, Nanjing 210094, Jiangsu Province, China.*

### **Abstract**

study aims to delve into the core contradiction in the sustainable development of Chinese emerging artificial intelligence (AI) open-source platforms (OSPs): the challenge of dynamically balancing knowledge search with appropriability risks. Focusing on two distinct OSPs types, the research analyzes how demand-driven platforms and technology-driven platforms adopt divergent governance mechanisms to manage this trade-off.

This study employs a process-oriented longitudinal comparative analysis of dual cases by tracking key technological decision points during the preparation, growth, and ecosystem phases of PaddlePaddle and MindSpore. It combines semi-structured interviews and secondary data to decode the patterns of strategic evolution.

The study finds that knowledge search in demand-driven OSPs follows a path of "knowledge exploitation in the preparation stage, knowledge exploration in the growth stage, and knowledge collaboration in the ecosystem stage". Through mechanisms of multi-tiered openness and industrial co-creation, these platforms drive the progressive evolution of their roles from "enterprise-specific tool" through "industry-enabling platform" to "ecological-level AI infrastructure".

## Circular economy innovation in SMEs: A case study

**Sirirat Sae Lim**

*Prof. (Associate), National Yang Ming Chiao Tung University*

**Yun Chieh Chen**

*National Yang Ming Chiao Tung University, Taiwan*

**Zheng Liu (Corr.)**

*Prof. (Associate), University of Greenwich, UK*

### Abstract

As global climate change and resource scarcity issues become increasingly severe, the circular economy is seen as a crucial pathway to achieving sustainable development (Ellen MaCarthur Foundation. 2014). While the current literature has provided frameworks and processes of implementing circular economy principles (See examples, Ellen; Liu et al. 2024), in practice, many small and medium-sized enterprises (SMEs) are facing challenges due to lack of resources and knowledge (Liu et al., 2023). Meanwhile, it is known that in an open innovation paradigm, SMEs can collaboratively share knowledge, co-create value and explore market potentials (Ma et al., 2019; Yun et al., 2021). Among the collaborators, stakeholders such as investors, suppliers, and customers can influence the innovation, especially sustainability-oriented innovation. However, the interactive factors remain underexplored. The research question is: *From a stakeholder perspective, how can a small and medium-sized enterprise innovate through the circular economy practice?*

This study draws upon the literature of circular economy and open innovation in the context of SMEs. These include the circular economy frameworks (Ellen MaCarthur Foundation. 2014; Liu et al., 2024) as well as open innovation concepts such as innovation ecosystem (Liu et al., 2023; Ma et al., 2019). Key papers relating to stakeholder view during sustainability-oriented innovation will also be reviewed.

The study adopts an interpretive approach (Gioia et al., 2013). Specifically, it relies on an in-depth single case study to explore theoretical and practical insights. The Taiwanese SME "DAWOKO" has been selected as a case to explore its concrete measures and carbon reduction effectiveness in implementing the circular economy in product design, production and manufacturing, business model innovation, and environmental responsibility.

# Advancing Public Administration through Information Governance: An Academic Study in the AI Era

**Hanbyul Choi**

*Assistant Professor of Public Administration, Kunsan National University, Gunsan, Korea*

**Dongwook Kim (Corr.)**

*Professor of Public Administration, Seoul National University, Seoul, Korea*

## Abstract

The rapid advancement of digital technologies, particularly artificial intelligence (AI), has necessitated a reevaluation of traditional public administration paradigms that have predominantly centered around organization, personnel, and finance. While these foundational domains remain essential, they may no longer suffice in addressing the complexities of modern governance. This study aims to investigate the expanding role of information governance within public administration and argues for its recognition as a mainstream discipline essential for effective governance in the digital age.

The research seeks to answer the following questions:

1. How has the evolution from e-government to digital government redefined government operations and interactions with citizens worldwide?
2. What new challenges and opportunities does information governance present to traditional public administration domains such as organization, personnel, and finance?
3. How can AI and related digital technologies be integrated into policy-making processes to enhance efficiency, transparency, and citizen participation?
4. What educational and research innovations are necessary to prepare public administration practitioners for the demands of the digital era?

By addressing these questions, the study aims to contribute to a more holistic understanding of public administration that integrates technological advancements with administrative theory and practice.

Early research on e-government primarily focused on leveraging information technology to enhance internal administrative efficiency and improve service delivery (Fountain, 2001). E-government initiatives were often characterized by the digitization of existing administrative processes without fundamentally altering the underlying structures or philosophies of government operations.

# Decentralized Decision-Making in the Shadow of Hierarchy: How Informal Hierarchy Differences Induce Deviant Voting in Decentralized Autonomous Organizations\*

Wenchang Li†

*Business School, Nankai University, Tianjin 300071, China*

Runhui Lin

*Business School, Nankai University, Tianjin 300071, China*

## Abstract:

Decentralized Autonomous Organizations (DAOs) have emerged as a prominent governance model in the digital age, yet the behavioral patterns of members and their underlying mechanisms in decision making processes remain theoretically underexplored. Drawing on social learning theory, informal hierarchy difference may amplify imitation of members in higher positions within the informal hierarchy; in contrast, social exchange theory suggests that such hierarchical gaps can undermine trust and inhibit imitation. This theoretical tension stems from overlooking the hierarchical difference between decision-makers. This study investigates how informal hierarchy difference affects subsequent members' voting behavior when members in higher positions within the informal hierarchy deviate from group consensus in DAO settings. Using voting data from MakerDAO, one of the leading DAOs on Ethereum, the study finds that greater informal hierarchy difference significantly suppresses the likelihood of imitating the deviant behavior of members in higher positions within the informal hierarchy. Furthermore, decision-making experience weakens this negative relationship, while both the quantity and quality of information provision strengthen it. This research contributes to the literature on DAOs, decentralized governance, informal hierarchy, leadership, and herding behavior.

Keywords: decentralized governance; informal hierarchy; decision-making; imitation; DAO; conflict

With the growing attention to decentralized practices and research, decentralized organizations have emerged as a significant topic in organizational studies (Lee & Edmondson, 2017; Reineke et al., 2025).

# Application of Sustainable Infrastructure Criteria at Publicly Owned Infrastructure Management Companies

**Kustova Ieva**

*Candidate for a PhD, Riga Technical University, Latvia*

**Hudenko Justina**

*Dr.oec., Assoc. Prof., Riga Technical University, Latvia*

**Lace Natalja**

*Dr.oec., Prof., Riga Technical University, Latvia*

## Abstract

Public infrastructure faces rising pressures from climate change and other environmental factors, requiring it to mitigate negative impacts and adapt to diverse social needs. The United Nations Sustainable Development Goals (UN SDGs) have set multiple objectives to be achieved by 2030, the Paris Agreement requires to limit global warming to a certain level, and the European Union in its Green Deal policy package has established its ambition to become climate-neutral by 2050. These targets require construction and operation of sustainable infrastructure which may facilitate achievement of economic, environmental and social goals on equal terms.

Several researchers have identified what the characteristics of sustainable infrastructure are. However, there remains a knowledge gap regarding their practical implementation and strategies to enhance their adoption. This paper will examine how various public infrastructure managers (state- or municipality-owned companies or entities) across the energy (electricity and heating), transport (air and rail), and water management sectors apply sustainable infrastructure criteria in their operations as well as the reasoning behind their approach.

The research will address three questions:

1. Are sustainable infrastructure criteria actively applied by public infrastructure development entities?
2. How do the application and usage of these criteria vary across sectors and geographical locations?
3. What are the underlying reasons for these variations?

# Comparative Study of AI National Strategies in Major Countries: Focusing on the UK, France, China, and South Korea

**Sen Zhan**

*PhD Researcher, Henan Academy of Social Sciences, China*

**Choong-Sik Chung**

*Professor, KyungSung University, Busan, Korea*

## **Abstract**

Many countries around the world are actively intervening in the AI field, and are promoting the AI industry as a policy from the perspective of national strategy. Considering the national strategic importance of AI, this paper newly established an analysis framework for AI national policy research. Next, we compared and analyzed the national strategies of China, the UK, France, and Korea, which are leading countries in the AI field, through the global hegemony competition in terms of industrial policy, technological level, human resources, and governance.

The UK, Korea, and France are competing to become global leaders in this field, such as by hosting international conferences on AI. In this process, the Chinese government's AI regulation movement needs to be understood as a process and method for China to secure leadership in the global AI ecosystem. In conclusion, all of the countries being analyzed are working to implement national AI strategies and create a safe AI ecosystem, focusing on AI national strategies. They are also establishing AI governance centered on the government and public-private collaboration, and laying the foundation for becoming a leading country in AI technology.

Keyword: Artificial intelligence(AI), AI national policy, AI governance, trustworthy AI, Sovereign AI

# Exploring Openness within European Universities Alliances: Challenges and Opportunities of Open Innovation and Open Science

**Krista OPMANE, Artūrs ZEPS , Inga LAPIŅA**

*Faculty of Engineering Economics and Management, Riga Technical University*

*Riga, 6 Kalnciema Str., LV-1048, Latvia*

## **Abstract**

The initiative concerning European universities is intrinsically linked to the objective of disseminating European values and identity, as well as enhancing the global competitiveness of higher education institutions. A total of 65 alliances are currently operational across 35 nations. At present, within the ambit of the internationalization strategy for higher educational establishments, the phenomenon of open innovation and collaboration with industry is increasingly prevalent, which entails the establishment of partnerships that amalgamate concepts and expertise of both the industrial sector and academia, to collectively contribute to societal advancement, as well as the intellectual property. The interaction between institutions of higher learning and the industrial sector is crucial in equipping emerging professionals to meet the demands of the marketplace. These circumstances present opportunities and challenges concurrently, necessitating universities to remain receptive to novel experiences and possess a well-defined strategic direction. This investigation aims to examine European alliances' perspectives regarding open innovation, encompassing its interpretation and the strategies employed to promote it. Additionally, it seeks to identify the barriers encountered in the adaptation of open innovation and to assess the general stance of European alliances towards openness to new experiences. To achieve this objective, a comprehensive literature review will be conducted, qualitative content analysis, alongside the Delphi method with universities within the alliances.

**Keywords:** Higher education, openness, open innovation, alliances, EU

**JEL Classification:** I23



# Social Economy and Social Open Innovation in Different Contexts; Findings from Cities in South Korea, Italy, and Poland

**JinHyo Joseph Yun (First and Corr.) first, and corr.**

*(DGIST and Open Innovation Academy)*

**Xiaofei Zhao**

*(DGIST, and Open Innovation Academy)*

**Inhyouk Koo(Co-Corr.)**

*(SookMyung Women's University, South Korea)*

**Valentina Della Corte**

*(University of Naples Federico II, Italy)*

**Giovanna Del Gaudio(Co-Corr.)**

*(University of Naples Federico II, Italy)*

**Katarzyna Turon(Co-Corr.),**

*Silesian University of Technology, Poland*

## Abstracts

This study wants to analyze the contexts of social economy which is the basic source of the characteristics of the social economy and its social open innovation as following: agenda, organization type, and the sustainability of the agents which operates in the social economy to meet the research gaps. To meet this research goal, two research questions as following are proposed: *Is there any difference between nations, South Korea, Italy, and Poland in the main context of social economy and social open innovation, for example, political context, economic context, or cultural context?; What kind of differences are motivated in main social economy organizations, main social economy agenda, and sustainability of social economy agents according to the difference of contexts?*

This study is based on multi methods and international comparative researches, which are useful to find out grounded theories when qualitative research methods like deep interview or participatory observation. Italy social economy is mainly based on the market context with the longest sustainability and well developed mature social economy. Poland social economy is mainly based on the cultural context with the shortest sustainability and under developing social economy.

## Exploring the influence of leaders and peers on job performance

**Chou-Kang Chiu\***

*(Prof. National Chengchi University, Taipei, Taiwan)*

**Chieh-Peng Lin**

*(Prof. National Yang Ming Chiao Tung University, Taipei, Taiwan)*

### **Abstract**

This research project examines the moderating roles of learning flexibility and learning self-efficacy in influencing job performance. Two conceptual models are proposed, grounded in Social Cognitive Theory and Conservation of Resources Theory.

Model 1 explores how task-focused leadership and person-focused leadership affect employee job performance directly and indirectly via problem-solving efficacy. It further posits that learning flexibility moderates these relationships, enhancing or weakening the effects of leadership and efficacy on performance.

Model 2 focuses on interns' job performance, analyzing how transformational leadership and peer resistance to change shape outcomes through the mediating roles of innovative work behavior (IWB) and learning goal orientation (LGO). Here, learning self-efficacy is hypothesized to moderate the strength of these mediated effects.

Both models will be empirically tested using validated measurement scales. The study aims to provide theoretical insights into how leadership and peer dynamics interact with personal learning traits to influence workplace behavior. Practically, the findings will support the design of training programs and leadership strategies that foster learning adaptability and self-efficacy in both employees and interns.

Keywords: Task-focused leadership, person-focused leadership, problem-solving efficacy, learning flexibility, learning goal orientation, learning self-efficacy

## Development of a theoretical framework to Evaluate and Rank the Innovation Efficiency of OECD countries

**Ali Murtaza Matto**

*Gyeongsang National University*

**Jeonghwan Jeon\***

*Gyeongsang National University*

### **Abstract**

Innovation, especially in science and technology, is essential for development and enhancing countries' growth rates and economic success. Through higher innovation efficiency, countries can optimize the utilization of their often-limited resources to generate significant economic impacts and promote the sustainable growth of their societies.

In previous studies, frameworks have been used to evaluate national innovation efficiency based only on the direct relationship analysis between innovation input variables and innovation output variables. However, some variables play a mediation and support role rather than acting as either input or output variables in measuring national innovation efficiency.

In this current research study, a theoretical framework is developed to measure the national innovation efficiency based on the relationship analysis among innovation input variables, innovation intermediate variables, and innovation output variables. Appropriate analysis of both qualitative and quantitative available data is done using appropriate procedures, techniques, and required software. A new national innovation efficiency performance index of OECD countries is developed based on the advanced developed theoretical framework and appropriate techniques. Hence, these countries are ranked according to their new national innovation efficiency performance index.

**Keywords:** Advanced National Innovation Performance Efficiency, National Innovation Analysis Framework; Qualitative and Quantitative Analysis Techniques, Innovation Efficiency Measurement; OECD Comparative Quantitative Ranking Indexed.

# The implementation of open innovation in energy recovery towards sustainable development

**Radosław Wolniak**

*Full Profesor, Silesian University of Technology, Organization and Management Faculty, Poland*

## **Abstract**

The purpose of the paper is to explore the role of open innovation in the development of energy recovery technologies with a view of assessing how such technologies would contribute to sustainable development. The work seeks to answer the following research questions: How can open innovation contribute to enhancing energy recovery systems, improving resource efficiency, and reducing environmental impact? The barriers and challenges of integrating open innovation in energy recovery lie in overcoming them. How do Public-Private Partnerships, in a cross-sector approach, drive innovation in the energy recovery sector? What are the implications of open innovation in fostering transitions toward a circular economy, thereby promoting sustainable energy solutions? This work will look into how integration with external knowledge, sharing resources, and collaborative work can accelerate the process of developing and deploying Energy Recovery Technologies contributing toward globally declared sustainability challenges.

Application of open innovation in energy recovery involves a wide range of stakeholders, including energy companies, startups, research institutions, governments, and NGOs. It is essential for such diversified players to develop innovative and scalable energy recovery technologies (Stanisławski, 2022). The collaborative efforts put forward by the public-private sector, together with inter-sectional collaboration between industries and academia, so far have been very successful in overcoming the technological and financial challenges. For instance, open innovation in waste-to-energy allows the collaboration on advanced material knowledge, thermochemical treatment processes, and new waste management practices that will promote more sustainable energy solutions (Del Vecchio et al., 2024). Probably, one of the key open innovation advantages in energy recovery is the ability to speed up the pace of technology development. Knowledge from the external environment, such as startups, research institutions, and other organizations, will contribute to better access to an enlarged pool of capabilities and resources. In such cases, collaborative actions accelerate the process of identifying promising technologies and solutions through much shorter timing and less cost than that conventionally consumed in the innovation process (Rahman and Alam, 2022).

# The Co-evolution Strategy of Government, industrial Internet Platform and SMEs in Regional industrial Internet Ecosystem: The Role of Government Subsidies and Value Co-creation

**Xinwei Ye**

*Nanjing Vocational University of Industry Technology, China*

*Nanjing University of Science and Technology, China*

**Lan Du (Corr.)**

*Nanjing Vocational University of Industry Technology, China*

**Lei Ma**

*Nanjing University of Science and Technology, China*

**ZhengLiu**

*University of Greenwich, UK*

## Abstract

In the context of intensified global competition and the sweeping wave of Industry 4.0, the industrial Internet, as a product of the deep integration of new-generation information technology and manufacturing, is becoming the core driving force for reshaping all elements, the entire industrial chain, and the entire value chain of the industry. Nonetheless, the development of China's industrial Internet ecosystem encounters many obstacles that impede the empowering influence of the industrial Internet on regional economies. The collaborative evolution among the government, industrial Internet platforms, and SMEs are the main driving force for the sustainable growth of the regional industrial Internet ecosystem. This paper constructs a three-party evolutionary game model to investigate the strategic choices and interaction mechanisms of the government, industrial Internet platforms, and SMEs in the regional industrial Internet ecosystem, reveals the key influencing factors of each entity's strategic decisions, and proposes targeted optimization suggestions. The research reveals that the government's strategy choices are not only influenced by the subsidies it offers to industrial Internet platforms and SMEs, but also involve the reputation gains resulting from the subsidies. For industrial Internet platforms, their decisions are mostly driven by government subsidies, synergistic benefits, and the revenue-sharing allocation ratio. SMEs primarily evaluate government subsidies, synergistic benefits, the revenue-sharing allocation ratio, costs of digital transformation, and potential risk losses.

# Transformation of Standardization Value: from Measurement Reference to Best Practice Benchmark

**Arta Pīlēna-Dālberga (Corr.)**

*Master, 1Riga Technical University, Faculty of Engineering Economics and Management, Institute for Quality Engineering, 2Latvian Standard Ltd., Latvian*

**Inga Lapīņa**

*Professor, Riga Technical University, Faculty of Engineering Economics and Management, Latvian*

## Abstract

The origins of standardization can be traced back to ancient history, when standards served as a reference for measurements. Under the influence of industrial development, global trends, and economic development, the significance and value of standards have transformed worldwide. Nowadays, an integral part of standards development is addressing the needs of all stakeholders, considering sustainability principles, providing support not only for compliance and innovative development for entrepreneurs and manufacturers, but also for ensuring safe living conditions for consumers as standards have become a benchmark of best practice. In the study, the authors discover the answer to the research question: how has the value of standardization transformed under the influence of industrial development?

Key Literature Reviews (About 3~5 papers): Standardization resolves situations where involved parties seek a common solution to problems and have not yet agreed on the preferred option. Today, many emerging contexts, including the transformation towards smart technologies and innovating large, complex systems rely on standardization. It plays a vital role in supporting major technological and societal trends. During the development of technical specifications for new technologies, standardization can be a critical tool in determining the success of the technology [1]. To redirect and accelerate technological development, a supportive combination of policies must contain a set of complementary interacting tools. Standardization can be seen as one of such tools that potentially fulfils different transformative functions which therefore form part of the policy mix. In the development of new markets for innovative products, standards promote the transition to more sustainable production and consumption models. They support the regulatory system in adapting and promoting innovation, bringing together different stakeholders with various interests in their development that later determine the production system in various ways.

# Intuitional Characteristics and Roll-Call Voting in EU AI Act

**Young-hwan Jeon**

*Postdoctoral Researcher*

*CISP, Seoul National University, Korea Republic*

**Meeyoung Park (Corr)**

*Postdoctoral Researcher*

*CISP, Seoul National University, Korea Republic*

## **Abstract:**

As artificial intelligence opportunities and threats surge in the era of public administration, the need for a study on AI regulation has emerged. As the integration of AI accelerates across sectors, public administration faces unprecedented opportunities to enhance efficiency, decision-making, and service delivery. However, this surge in AI adoption also introduces significant challenges, including concerns over ethical usage, accountability, bias, and the potential for societal disruption. The dual nature of AI as both a transformative tool and a potential risk necessitates a focused study on AI regulation to ensure that its deployment aligns with public interest, safeguards democratic values, and minimizes harm. Effective AI regulation can provide a structured framework for innovation while addressing issues like privacy, transparency, and equitable access, which are critical to fostering trust and legitimacy in public administration during this pivotal era.

This study investigates the policy process of the EU AI Act (European Union Artificial Intelligence Act) in comparison with the EU GDPR (EU General Data Protection Regulation). As Ostrom's effort on the institutional framework suggested that multi-layered institutions at different levels impact the decision-making processes of groups and individuals, this study explores roll-call vote results of the AI act and GDPR cases in the light of institutional factors at the individual, societal, political, national, and international levels.

The comparison between the GDPR and AI Act is particularly relevant given their shared goal of regulating disruptive digital technologies in the EU. Both legislative frameworks seek to address concerns about privacy, ethical use, and societal impacts, yet they focus on different domains—data protection in the case of GDPR, and AI system regulation in the case of the AI Act.

# A Data-Driven Approach to Copper Price Forecasting: Integrating Macroeconomic Indicators with Time Series and Machine Learning Models

**Nawon Park**

*Undergraduate Student, Department of International Trade, Kyung Hee University,  
Republic of Korea*

**Jaeho Jung**

*Lecturer(Ph. D), Program in Science&Technologies Studies(STS), Korea University, Republic of Korea*

## ABSTRACT

This study aims to develop a forecasting model for copper price volatility to support corporate procurement decision-making. The dataset comprises monthly copper price data from January 2014 to August 2024, along with key macroeconomic indicators from China, including the Li Keqiang Index, the Producer Price Index (PPI), and copper import volumes. The forecasting models applied in this research are the ARIMA (Auto-Regressive Integrated Moving Average) model and the ARIMAX (ARIMA with Exogenous Variables) model, which incorporates external variables. The analysis shows that the ARIMA model achieved high accuracy in short-term forecasting, with an RMSE of 0.4577. The ARIMAX model, which integrates the influence of exogenous variables, demonstrated improved performance in long-term forecasting, although it exhibited wider confidence intervals. This study confirms that data-driven forecasting models can offer practical support for procurement strategies, particularly in industries that heavily rely on copper. By identifying key determinants of copper price fluctuations and validating the performance of the forecasting models, the study highlights the value of data-driven approaches. The findings are expected to serve as a foundational reference for the development of pricing strategies and policy frameworks in the raw materials market.

**Keywords:** Commodity Price Forecasting, ARIMA, Time Series Analysis, Machine Learning



## Comparative Study of Artificial Intelligence Regulations: Focusing on the EU and US

**Meeyoung Park**

*Postdoctoral Researcher*

*CISP, Seoul National University, Korea Republic*

**Young-hwan Jeon (Corr)**

*Postdoctoral Researcher*

*CISP, Seoul National University, Korea Republic*

### Abstract

As artificial intelligence (AI) continues to advance at an unprecedented pace, concerns about its potential risks have grown significantly, prompting major countries around the world, including the United States and the European Union (EU), to take proactive steps in addressing these challenges. Both regions recognize the need to mitigate the potential harms that AI could cause, while also ensuring that they do not stifle innovation in the AI sector. Consequently, there has been a growing emphasis on implementing standards and legal frameworks that can effectively regulate AI technologies and manage the risks they present. This is crucial for protecting public safety, maintaining privacy, and ensuring fairness in the application of AI, especially as its use becomes increasingly pervasive in various sectors such as healthcare, finance, and transportation.

However, despite these shared goals, there are fundamental differences in how the U.S. and the EU approach the regulation of AI. The EU has taken a proactive and precautionary stance toward AI governance, prioritizing the implementation of robust regulatory frameworks to ensure that AI systems are transparent, accountable, and aligned with European values, including respect for privacy and non-discrimination. The EU's approach is characterized by comprehensive laws such as the proposed Artificial Intelligence Act, which seeks to establish strict guidelines for high-risk AI applications. This reflects the EU's broader precautionary principle, which emphasizes preventing potential harm before it occurs.

On the other hand, the U.S. tends to favor a more flexible, market-driven approach to AI regulation. As home to some of the world's largest technology companies, including Google, Microsoft, and others, the U.S. is more inclined to trust industry-led innovation and self-regulation.

Keywords: AI regulation, Institutional Analysis and Development (IAD) framework, US, EU

# Increasing the importance of biofuels in the global energy mix as a determinant of innovation and changes in research methodology

**First Author Name: Bożena Szczucka-Lasota ✖**

*Position (Prof. of Silesian University of Technology), Affiliation (Silesian University of Technology, Poland)*

**Second Author Name : Tomasz Węgrzyn**

*Position (Full Prof.), Affiliation (Affiliation (Silesian University of Technology, Poland), Poland)*

**Author Name: Abilio Silva**

*Position (Full Prof.), Affiliation (University da Beira Interior, Portugal)*

## Abstract

The global process of gradual withdrawal from the use of fossil fuels, through, among others, closing or preventing the construction of new power plants for these fuels or eliminating fossil fuels from transport, affects the growing use of new energy sources, including biofuels. Due to the specific properties of liquid biofuels and their operational durability, an important element is the assessment of their quality and suitability in transport processes. The article emphasizes the development of innovative approaches to biofuel quality assessment, aiming to address the limitations of traditional methods. The aim of the article is to present a new method for assessing the quality of liquid biofuels stored for a long time.

A detailed analysis of research results published worldwide allows us to conclude that (Lalramnghaka, et al. 2023; Aarhaug et al. 2020 ; Hirota and Kashima 2020; He et al. 2021; Silva et al. 2021; Vasileiadou, Zoras, and Iordanidis 2021; Song, G., et al. (2022).):

The observed changes in the morphology of liquid fuels, especially of the biofuels correspond to the ageing changes occurring in these fuels (both in the case of gasoline and diesel oils analyzed in the literature). It was confirmed that owing to the long-term storage of fuels, their functional properties deteriorated significantly.

Some tested fuels should be withdrawn from the market because of their insufficient quality for use due to ongoing ageing processes.

Different fuel fractions from the same tank may exhibit different characteristics, resulting in different operational properties.

## **SOI 2025 10th Anniversary Conference**

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

## **SOI 2025 10th Anniversary Conference**

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

# **SOI 2025 10th Anniversary Conference**

**July 15(Tue.)~18(Fri.), 2025, Main Conference Days**

**Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-  
myeon, Dalseong-gun, Daegu, 42988, Korea**

**July 16 (Wednesday)**

## **SOI 2025 10th Anniversary Conference**

**July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea**

***July 16 (Wednesday)***

---

**Venue: Room 202, Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea, 09:00~10:30**

**Innovative Business Models and Strategic Collaborations for Future Growth**

**Chairs: Junic Kim(KonKuk University, Korea) & Erlinda N. Yunus(Sekolah Tinggi Manajemen PPM, Indonesia)**

- Paper 1: "The Transformative Impact of Artificial Intelligence on Business Model Innovation" by **Yeji Yun, Junic Kim**
- Paper 2: "How leading manufacturing enterprises can build innovation ecosystems to achieve sustainable development" by **Boxiong Xie, Weixin Zhu, Yuxuan Xie\***
- Paper 3: "Mapping the Landscape of University Business Models" by **Junic Kim**
- Paper 4: "Does collaboration in cyberspace promote entrepreneurial intentions? Empirical evidence of digital entrepreneurship among Korean university students in the AI era" by **ByungYun Bae, Sungyong Choi\***
- Paper 5: "The Successor's Journey: How Business Acumen and Resource Orchestration Drives Innovation, Logistics Integration, and Family Firm Performance" by **Erlinda N. Yunus\*, Apri Hidayati, M Akhsanur Rofi**

***July 16 (Wednesday)***

---

**Venue: Room 203, Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea, 09:00~10:30**

**Green Governance and Evaluation**

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

**Chairs: Weian Li(Nankai University & Tianjin University of Finance and Economics, China), Han Nu Ngoc Ton(International University, VNU-HCMC, Vietnam), Hyoung Ryul Ma(OSP, Korea)**

- Paper 1: "Network expansion and the degree of technological innovation breakthroughs: The moderating role of new partner distance" by **Runhui Lin, Qiqi Xie\*, Ze Ji**
- Paper 2: "Core Assessment of CUBIC Framework: Effect of CDO's Strategic Orientation on Innovative Organizational Culture" by **Kyungdong Kim & Min Han Kim**
- Paper 3: "Towards Sustainability of Government Services in the era of Industry 5 Technologies: The Opportunities, Challenges and Key Drivers - A Systematic Review" by **Sunith Hebbar\***
- Paper 4: "Professional Coping among Street-Level Bureaucrats in Vietnam: Explanation from Job Characteristics and Job Outcomes" by **Han Nu Ngoc Ton\*, Trang Minh Tran-Pham, Tran Quang Tuyen, Chanh Thanh Minh Nguyen, Phuong Lan Nguyen**
- Paper 5: "Mapping AI Diffusion and Stakeholder Networks in Korean Manufacturing (Through Topic Modeling and OM-Centric Analysis)" by **Hyoung Ryul Ma, Hyo Jung Jang, Dong Hoon Oh**

### *July 16 (Wednesday)*

---

**Venue: Room 204, Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea, 09:00~10:30**

#### **Business Model Competition Session**

**Chair: JuHyun Eune(Seoul National University, Korea)**

- Paper 1: "Redesigning Pet Registration Systems for Pet Welfare Enhancement: A UX and Service Design Approach to Responsibility and Behavioral Engagement" by **Seohyo Ahn, Juhyun Eune\***
- Paper 2: "A Study on the B2G Model for Public Application of Room Escape Game-Based (EER) Sex Education: A Proposal of the SEER Framework" by **Siwon Park, Juhyun Eune\***

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

- Paper 3: "Proposed mentoring program model to support North Korean women's settlement" by **Seojin Hong, Juhyun Eune\***
- Paper 4: "Strategic Private Equity Investment in Open Innovation Ventures and SMEs: Key Success Factors" by **Minseo Jung [Online]**
- Paper 5: "Leveraging Open Innovation to Enhance ESG Solutions in Small and Medium Enterprises" by **Yoonseo Jung [Online]**

### *July 16 (Wednesday)*

---

**Venue: Room 301, Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea, 09:00~10:30**

### **Open Innovation, Entrepreneurship, and Innovation Ecosystem in Biohealth Industry**

**Chairs: Kwangsoo Shin(The Catholic Univ. of Korea, Korea) & Harry Jeong (Central Research Institute of Dr. Chung's Food, Korea) & Pham Thanh Nga, (National Economics Univ., Vietnam)**

- Paper 1: "Determinants of AI adoption across sectors and technological intensity" by **Changhyeon Song; Harry Jeong; Kwangsoo Shin\***
- Paper 2: "The adoption and impact of open innovation practices on the performance of firms: A case study of the Indian biotech industry" by **Aishwarya Narayan, Sumukh S Hungund, Lidwin Kenneth Michael**
- Paper 3: "Impact of Global Convergence Trends on R&D Investment in South Korea: A Comparative Analysis by Research Field" by **Woojoong Kim, Dongsoo Paik, Sunghyung Kong, Ahyoung So, Kyunghye Lee, Hyewhon Rhim\***
- Paper 4: "Analyzing the Outcomes of Fostering Regional Women in STEM in context of Open Innovation" by **Saimi Woo**
- Paper 5: "Legal framework for crypto-currencies and digital assets in Vietnam" by **Pham Thanh Nga, LL.M, Nguyễn Minh Thảo**



***July 16 (Wednesday)***

---

**Venue: Room 202, Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea, 14:30~16:00**

**Exploring the Impact of Open Innovation on Entrepreneurial Intentions and Social Performance & Business Innovation in Digital Transformation**

**Offline Chair: SungYong Choi (Hanyang Univ., Korea)**

**Online Chair: Yuri Sadoi (Meijo University, Japan)**

- Paper 1: "The Impact of Social Startup Networks on Economic and Social Performance" by **ByungYun Bae, Sungyong Choi\***
- Paper 2: "Strategic Sourcing for Critical Needs: Balancing Costs, Risks and Sustainability in Operations" by **Evi Rahayu Izzah, Erlinda N. Yunus\***
- Paper 3: "Exploring the Impact of Social Media on Sustainability Narratives: Quantitative Content Analysis of Facebook Pages of Creative" by **Julija Surikova, Deniss Sceulovs, Zane Drinke, Valdis Luks**
- Paper 4: "How AI helps team autonomy?" by **Joe Justice, Kazutaka Sankai, Yuri Sadoi [Online]**
- Paper 5: "Succession in Driving Innovation within Family-Owned Businesses in Japan" by **Yuri Sadoi, Sergei Shaposhnikov [Online]**

***July 16 (Wednesday)***

---

**Venue: Room 203, Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea, 14:30~16:00**

**Politics, Power, and Evidence in Policy Decision-Making: Challenges and Discursive Dynamics**

**Chairs: Minhan Kim(Sangmyung University, Korea) & Ruihui Lin(Nankai University, China)**

- Paper 1: "Drivers of Innovative Work Behavior in Public Organizations: A CatBoost–SHAP Approach" by **Min Han Kim & Kyungdong Kim**
- Paper 2: "Fractal Features of Knowledge Networks" by **Runhui Lin\*, Meichen Chen**
- Paper 3: "The strategic use of digital transformation capability: A meta-analytic approach" by **Chang, Woojung, Jeong-Bin Whang\* & Jong-Ho Lee**
- Paper 4: "How Earthquake Shocks Affect Executives' Excess Perk Consumption: A Quasi-Natural Experiment from the Wenchuan Earthquake" by **LI Weian, ZHANG Wei, GAO Mingyang**
- Paper 5: "Governance Roles in Open Innovation Ecosystems: Exploring Challenges, Opportunities, and Emerging Concepts" by **Kristaps Banga, Elīna Gaile-Sarkane**

***July 16 (Wednesday)***

---

**Venue: Room 204, Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea, 14:30~16:00**

**Marketing & Innovation**

**Chairs: Sungho Lee(University of Seoul, Korea) & Mahesh Prabhu H(Manipal Academy of Higher Education, India)**

- Paper 1: "How does the campus architecture design motivate open innovation?-Comparative analysis among Apple park campus, Dyson Malmesbury campus, and DGIST campuses" by **JinHyo Joseph Yun\*, Xiaofei Zhao, Kyungbae Park, Heungju Ahn\*, Zheng Liu, Tan Yigitcanlar**
- Paper 2: "Understanding the market-based capability of Korean firms based on dynamic capability and resource-advantage theory" by **Shin, Sohyoun, Sungho Lee**

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

- Paper 3: "Dynamics Between the Enablers of Fintech Adoption: A Case of India" by **Deepa Prabhu, Mahesh Prabhu H\***
- Paper 4: "Public Sentiments Factors Affecting the Continuance Intention of Fintech Lending in Indonesia" by **Widyarso Roswinanto\*, Muhammad Akhsanur Rofi**
- Paper 5: "Improving Climate Outcomes through Disclosure: The Effect of the CSRD on Spanish Firms" by **Santiago Fernández-Méndez, Beatriz Aibar-Guzmán, Cristina Aibar-Guzmán**

### *July 16 (Wednesday)*

---

**Venue: Room 301, Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea, 14:30~16:00**

#### **Innovation & Growth**

**Chairs: Kangwon Lee(Korea Institute for Advanced Study, Korea) & Jaeho Jung(Korea University, Institute of Future Growth, Korea) & Asish Oommen Mathew(Manipal Academy of Higher Education, India)**

- Paper 1: "Dynamic Analysis of R&D Productivity among European Countries" by **Jaeho Jung, Kangwon Lee**
- Paper 2: "Adoption and Purchase Intentions of AR Smart Glasses Among Gen Z: Analyzing Key Influences and Drivers" by **Anasuya K Lingappa, Ujwal Uthappa HP, Asish Oommen Mathew\***
- Paper 3: "Innovation Ecosystem of Entrepreneurial Hospital" by **Harry Jeong; Changhyeon Song,**
- Paper 4: "The co-creation of sustainability transition in air mobility" by **Giovanna Del Gaudio, Valentina Della Corte, Vincenzo Carraturo [Online]**
- Paper 5: "Fostering Open Innovation for Societal Safety through Exploiting Digital Transformation in Market Surveillance" by **Svetlana Mjakuskina\*, Maija Kavosa, Inga Lapina**

***July 16 (Wednesday)***

---

**Venue: Room 202, Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea, 16:30~18:00**

**Impactful Sustainability Innovation: the Future Challenges of Business, Technology and Creative Industries**

**Chairs: Deniss Ščeuļovs, Ilze Jankovska & Arturs Bernovskis (Riga Technical University, Latvia), Junic Kim(KonKuk University, Korea), Ansun Park(OSP, Korea)**

- Paper 1: "Policy Development Innovation with Gamification in Society 5.0" by **Arturs Bernovskis\***, **Deniss Sceuļovs**
- Paper 2: "Dynamic Capabilities and Export Performance: A Pathway to Business Innovation" by **Huan Meng, Junic Kim**
- Paper 3: "A study of gender differences in AI adoption among Indian Engineering students: Implications for actionable initiatives at institutes" by **Geethalakshmi P M**
- Paper 4: "Innovating Smart City Solutions through Gamification in Society 5.0" by **Arturs Bernovskis, Deniss Sceuļovs**
- Paper 5: "Exploring Intellectual Structure, Network and Research Themes in Open Innovation" by **Ansun Park, Minzy Moon**
- Paper 6: "LNG Supply Chain Optimization: Open Innovation in Transportation and Energy in Vietnam" by **Linh My Bui, Phuong Van Nguyen, Ulrich Elmer Hansen**

***July 16 (Wednesday)***

---

**Venue: Room 203, Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea, 16:30~18:00**

## **Innovation Diversity for Emerging Economies**

**Chairs: Natalja Lace(Riga Technical University, Latvia) & Karine OGANISJANA (Riga Technical University, Latvia), Heongu Lee(OSP, Korea), Jeonghwan Jeon(Gyeongsang National Univ., Korea)**

- Paper 1: "How do CEO Characteristics Impact Corporate Participation in Triple Income Distribution under the Background of Common Prosperity? —Machine learning based Approach" by **LIN Runhui, ZHANG Zhimin, QU Liang**
- Paper 2: "AI-Driven Outpatient Management Using Smart KIOSK Systems, AR-IoT Vital Monitoring, Predictive Diagnosis, and Resource Optimization" by **Vineetha Edwina Jathanna\*, Vimuktha E Salis, Dr. Kevin Manohar Salis, Pathanjali C**
- Paper 3: "The Effect of Scientific and Technology Personnel's Self-Efficacy on Innovation Behavior Mediated by Learning Agility" by **Yongsu Jeong, Hyewon Hwang, Jeonghwan Jeon\***
- Paper 4: "Converging Robotics and Design: Leveraging Open Innovation for Enhanced Human-Machine Collaboration" by **Heongu Lee, Jun jin-woo**
- Paper 5: "How Do Customer-Robot Interactions Shape Employees' Emotional Labor? Evidence from the Hospitality Industry in China" by **Sang-Joon Kim, Inhyouk Koo\*, Zhang Yuanqi**
- Paper 6: "Carbon Footprint as a Welding Challenge and Innovation for Environmental Protection" by **Bożena Szczucka-Lasota, Tomasz Węgrzyn, Abilio Silva [Online]**

## ***July 16 (Wednesday)***

**Venue: Room 204, Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea, 16:30~18:00**

## **Innovation, Technology and Sustainability**

**Chair: Isabel-María García-Sánchez (Universidad de Salamanca, Spain)**

**Offline Chair: Sangdon Lee(Ehwa Womans University, Korea)**

- Paper 1: "Research on the relationship between species richness and abiotic environmental factors in wetlands" by **Sandon Lee, Yein Lee**
- Paper 2: "Integrating ESG into organizational strategies: roles of resilience and adaptive capabilities"

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

by **Whang, Jeong-Bin, Jong-Ho Lee\***, **Sungho Lee**

- Paper 3: "AI Coding Assistants in Computer Science Education: Adoption, Self-Efficacy, and Academic Open Innovation Practices" by **Asish Oommen Mathew\***, **Aditi Rishiraj**
- Paper 4: "A Comparative Study on Entrepreneurial Perception between Korea and Nepal Using the Korea Entrepreneurship Index (KEI)" by **Myoungkwan Lee, Daeyul Jeong, Sanghyeok Park\***
- Paper 5: "CREATING INTEGRATED VALUE THROUGH THE CIRCULAR ECONOMY: IMPLICATIONS FOR BUSINESS AND SOCIETY" by **Saudi-Julieth Enciso-Alfaro & Isabel-María García-Sánchez**
- Paper 6: "ESG Controversies and Sustainability Reporting: An Empirical Study of Listed Companies" by **Albertina Paula Monteiro, Catarina Cepêda**

### *July 16 (Wednesday)*

**Venue: Room 301, Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea, 16:30~18:00**

### **Open innovation and sustainability: strategies for transforming industries**

**Online Chairs: Valentina Della Corte & Giovanna Del Gaudio(University of Naples Federico II, Italy)**

**Offline Chair: Dohyoung Kim (KETEP, Korea)**

- Paper 1: "The impact of middle management on inter-organizational public R&D team" by **Jooyeon Oh, Eungdo Kim, Dohyoung Kim\***
- Paper 2: "SUSTAINABLE TOURISM DEVELOPMENT: A CASE STUDY IN MUI NE FISHING VILLAGE, PHAN THIET CITY, VIETNAM" by **Ho Dinh Phi, Linh Lê Anh, Bich Dinh Nguyet, Khoa Nguyen Van, Dinh Thi Quynh Hoa, Han Nu Ngoc Ton\***
- Paper 3: "A Qualitative Study of Circular Business Models: Insights from Small and Medium-Sized Enterprises (SMEs)" by **Sasichakorn Wongsachia & Chavis Ketkaew\***
- Paper 4: "Fostering Open Innovation for Societal Safety through Exploiting Digital Transformation in Market Surveillance" by **Svetlana Mjakuskina\*, Maija Kavosa, Inga Lapina**

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

- Paper 5: "Open Innovation and intellectual capital in the fashion and textile industry" by **Valentina Della Corte, Enrico Di Taranto, Simone Luongo, Vincenzo Carraturo, Giovanna Del Gaudio** *[Online]*
- Paper 6: "How does financial risk attitude influence small and medium enterprises' digitalization and sustainability investment decisions?" by **Laura Trueba, Francisco-Manuel Somohano & Begoña Torre** *[Online]*

# The Transformative Impact of Artificial Intelligence on Business Model Innovation

**Yeji Yun**

*Ph.D. Candidate, Konkuk University, Republic of Korea*

**Junic Kim**

*Prof. Ph.D., Konkuk University, Republic of Korea*

## **Abstract**

Companies are driving digital transformation to foster innovation, and as generative AI is rapidly adopted, academic studies on business model innovation (BMI) incorporating digital and AI applications are increasingly emerging. Research on corporate innovation centered on digital transformation has predominantly focused on process innovation from a management perspective. However, AI is being applied at customer interaction touchpoints, leading to a shift towards pursuing innovation in the business model itself.

Despite this trend, most current studies related to AI-based BMI remain fragmented, focusing primarily on the technical application of AI. Therefore, this study aims to synthesize existing literature on AI-driven business model innovation, analyze the key drivers of innovation that generative AI brings to business models—distinct from traditional digital transformation—and propose future research agendas for effectively leveraging AI in BMI.

Research Question:

How does AI-based business model innovation differ from digital transformation-based innovation? Vaio et al. (2020) argue that AI has a pivotal impact on companies striving to achieve both profitability and sustainability. They emphasize that optimizing AI-enabled business models is essential for securing competitiveness while considering environmental and social impacts from a long-term perspective. Particularly, as AI is integrated into corporate processes and strategies, it influences decision-making and transforms how businesses operate (Strandhagen et al., 2017). This integration suggests a direction where sustainability is incorporated into business models, extending from small-scale changes in corporate culture to large-scale creation of new value (Duan et al., 2019).



# How leading manufacturing enterprises can build innovation ecosystems to achieve sustainable development

**Boxiong Xie**

*Undergraduate Student, Beijing Jiaotong University & Rochester Institute of Technology, Chinese*

**Weixin Zhu**

*Mr. Beijing Jiaotong University, Chinese*

**Yuxuan Xie ( corresponding author )**

*Ph.D. Student, Tsinghua University, Chinese*

## **Abstract :**

As technological complexity intensifies and user demands become more diverse, innovation is no longer confined within firm boundaries but increasingly embedded in ecosystem-level collaboration. Anchored in dynamic capabilities theory, this study explores how leading manufacturing firms construct innovation ecosystems by reconfiguring internal routines, activating collaborative mechanisms, and responding to shifting external conditions. Through a comparative case study of CRRC Zhuzhou Institute (a high-end equipment manufacturer) and Haier Group (a consumer goods leader), we identify two contrasting ecosystem-building paths: a technology-centric integration one and a user-driven platform one.

Our findings show that a firm's initial value anchoring—whether grounded in technical reliability or user responsiveness—shapes the sequence of dynamic capabilities it activates, the governance model it adopts, and the strategies it employs to expand ecosystem boundaries. CRRC exemplifies a vertically integrated approach, using standardization and system coordination to build tightly controlled ecosystems. In contrast, Haier constructs open, horizontally networked ecosystems through platformization and decentralized governance.

Based on these insights, we propose a multi-layered model that links external triggers, capability activation, governance formation, and boundary evolution, highlighting how different types of complexity—technological versus user-driven—influence strategic configurations. This study extends innovation ecosystem theory by offering a nuanced account of how dynamic capabilities drive divergent ecosystem strategies across varied industrial contexts.

Keywords: Dynamic Capabilities , Innovation Ecosystems , Manufacturing Strategy

# Mapping the Landscape of University Business Models

**Junic Kim**

*School of Business, Konkuk University*

*120 Neungdong-ro, Gwangjin-gu, Seoul, Republic of Korea, 05029*

## **Abstract :**

Universities are navigating a pivotal era of transformation, driven by rapid technological advancements, globalisation, shifting societal expectations, and increased competition in a volatile economic environment. Historically, universities have focused on their traditional roles of knowledge dissemination through teaching, advancement of knowledge through research, and service to their communities. These core activities were built on stable funding structures, predictable frameworks, and gradual adaptation to societal needs. However, in the current context, these paradigms are no longer sufficient to address the complex challenges universities face today, including financial sustainability, digitalisation, the demand for innovation, and the call for broader social and environmental accountability.

This study focuses on understanding how universities can adapt their business models to navigate this dynamic landscape effectively. It seeks to address two fundamental research questions:

Research Question 1:

What are the fundamental dimensions and key components identified in the academic literature on university business models, and how have the approaches and perspectives within this field of study developed over time?

Research Question 2:

What specific theoretical, methodological, and practical gaps exist in the current academic discourse on university business models, and how do these gaps inform future research directions?

The concept of a business model, often associated with the corporate sector, has been increasingly applied to universities to understand how they create, deliver, and capture value in a competitive environment. However, research on university business models remains fragmented, with studies often focusing narrowly on individual components rather than providing an integrated perspective. Early studies, such as those by Anderson et al. (2004), explored how universities could align their strategies with market demands, emphasising the importance of adaptability and value creation. Camison-Zornoza et al. (2004) examined innovation processes, highlighting how universities could leverage their resources to foster differentiation and competitiveness.

# Does collaboration in cyberspace promote entrepreneurial intentions? Empirical evidence of digital entrepreneurship among Korean university students in the AI era

Byungyun Bae<sup>1</sup>, and Sungyong Choi<sup>2\*</sup>

*1Assistant Professor, Department of Business Administration, Halla University, Wonju 26404, South Korea.*

*2Professor, Division of Operations and Service Management, School of Business, Hanyang University, Seoul 04763, South Korea.*

## Abstract:

This study explores the impact of prospective innovators' collaborative capability in cyberspace on their entrepreneurial intentions. Collaborative capability within cyberspace refers to the ability to work together through activities in cyberspace, such as social media. We aim to explore this impact through empirical research targeting university students, thereby contributing to the advancement of knowledge in the field of digital entrepreneurship research.

This study proposes an empirical model in which innovativeness is posited as an independent variable, collaboration capability within cyberspace as a mediating variable, and entrepreneurial intention as a dependent variable. The model is validated through a quantitative survey using a sample of 322 undergraduate students in South Korea. A structural equation modelling (SEM) approach was employed to validate the proposed model and assess the intermediary function of digital collaboration capability.

The analysis confirms that students exhibiting higher levels of innovativeness tend to report stronger entrepreneurial intentions and are more adept at engaging in collaboration within digital platforms. Furthermore, the mediation analysis reveals that digital collaboration capability significantly bridges the effect of innovativeness on entrepreneurial intention.

These findings suggest that innovativeness and cyberspace collaboration capability can enhance entrepreneurial intention. Furthermore, innovative prospective entrepreneurs can increase their entrepreneurial intention through the indirect effect of cyberspace collaboration capability. This implies that developing policies and educational programs that enhance innovativeness and cyberspace collaboration capability can increase entrepreneurial intention among university students.

# The Successor's Journey: How Business Acumen and Resource Orchestration Drives Innovation, Logistics Integration, and Family Firm Performance

**Erlinda N. Yunus (Corr.)**

*Associate Professor, Sekolah Tinggi Manajemen PPM, Jakarta, Indonesia*

**Apri Hidayati**

*Assistant Professor, Sekolah Tinggi Manajemen PPM, Jakarta, Indonesia*

**M Akhsanur Rofi**

*Lecturer, Sekolah Tinggi Manajemen PPM, Jakarta, Indonesia*

## Abstract

This study aims to investigate a model of a family business successor's journey toward a firm's sustained performance. Specifically, this study provides empirical evidence of a successor's business acumen in orchestrating a firm's resources, which improves firm innovation, logistics integration, and, subsequently, firm performance.

Family companies are significant businesses in a country's economy. These businesses collectively contribute an estimated 70% to 90% of global GDP and provide between 50% and 80% of jobs worldwide (De Massis et al., 2018). These statistics underscore the critical role that family businesses play in economic stability and growth. Thus, the sustainability of a family business is determined in real terms by the successor of the family business founder.

Although the figure of the successor is emphasized, in the end, the company's performance determines the business's sustainability. There have been many studies on family businesses, succession, and sustainability. However, very few studies discuss the journey of successors in managing the inherited business until the business grows and flourishes. The Resource Orchestration Theory (ROT) can be used to investigate this phenomenon.

Resource Orchestration was first described by Sirmon et al. (2011), who suggested the importance of "structuring, combining, and leveraging" resources to ensure firm value creation and competitiveness. Resource Orchestration Theory (ROT) provides an important framework for firms to address business challenges by focusing on acquiring, allocating, and using resources for competitive advantage.

# Network expansion and the degree of technological innovation breakthroughs: The moderating role of new partner distance

Runhui Lin <sup>a,b</sup>, Qiqi Xie <sup>a,\*</sup>, Ze Ji <sup>a</sup>

*a. Business School, Nankai University, Tianjin 300071, China*

*b. China Academy of Corporate Governance, Nankai University, Tianjin 300071, China*

## Abstract:

Based on network dynamics theory, knowledge creation and innovation are dynamic processes, where individuals eager to pursue new knowledge must occupy and expand information channels through network dynamics. Therefore, inventors expand their collaboration networks by engaging with new partners, providing more opportunities for knowledge exchange, knowledge integration, and innovative development. We aim to examine the impact of the breadth and depth of inventors' ego-network expansion on their breakthrough innovation from a network dynamics perspective, and to explore whether the differences between focal inventors and new partners affect innovation transformation — specifically, to investigate the moderating roles of geographic distance, technological distance, and experiential distance. Using utility patents in the nanotechnology field from the USPTO as the research object, this study constructs a moving time window with a five-year period and employs negative binomial regression for empirical analysis. The results show that both the breadth and depth of network expansion have positive effects on breakthrough innovation. Geographic distance positively moderates the relationship between network expansion breadth and breakthrough innovation, while negatively moderating the relationship between network expansion depth and breakthrough innovation. Technological distance negatively moderates the relationship between network expansion breadth and breakthrough innovation, while positively moderating the relationship between network expansion depth and breakthrough innovation. Experiential distance negatively moderates the relationships between both the breadth and depth of network expansion and breakthrough innovation.

## Keywords:

breadth of network expansion, depth of network expansion, geographic distance, technological distance, experiential distance

# Core Assessment of CUBIC Framework: Effect of CDO's Strategic Orientation on Innovative Organizational Culture

**Kyungdong Kim,**

*Assistant Professor, Kwangwoon University*

**Min Han Kim,**

*Assistant Professor, Sangmyung University*

## Abstract

This study investigates the impact of Chief Data Officers' (CDOs) value impact on innovative organizational culture in the public sector. The value impact of a CDO can be categorized into two orientations: service-orientation and strategy-orientation. A service-oriented CDO emphasizes the management of public sector data and the improvement of data service quality, whereas a strategic-oriented CDO focuses on formulating government strategies and promoting data-based policymaking. These differing leadership orientations of the CDO may distinctly influence the development of an innovative organizational culture. The analysis reveals that CDO's strategic orientation has a positive effect on innovative culture, while service orientation does not exhibit a significant impact. These findings suggest that in order to enhance innovation culture within public organizations, it is essential to encourage CDOs to adopt a more strategically oriented approach.

Keywords: CDO, Chief Data Officer, Data Governance, Strategic Leadership, Strategic Thinking, Innovative Organizational Culture

# Towards Sustainability of Government Services in the era of Industry 5 Technologies: The Opportunities, Challenges and Key Drivers - A Systematic Review

**Sunith Hebbar (Corr.).**

*Assistant Professor, Department of Humanities and Management, Manipal Institute of Technology, Manipal Academy of Higher Education, Manipal, India*

## Abstract

The United Nations Sustainable Development Goals (SDGs) have become a fundamental part of governance systems worldwide, with nations incorporating them into their policies and regulations to ensure a better and more sustainable future. This integration extends to public services, where the SDGs are shaping how services are delivered. In this context, Industry 5.0 technologies such as artificial intelligence (AI) and blockchain are anticipated to play a vital role in promoting the sustainability of government services. As a result, modern information and communication technologies (ICTs) in electronic and mobile government systems are emerging as key areas of focus for researchers focusing on sustainability. With the growing body of research in this field, it is essential to take a stock of existing literature and categorize them into various themes to gain a comprehensive understanding of the topic and identify future research directions. This process also lays the foundation for a systematic review, enabling the qualitative extraction of key insights, including opportunities, challenges, and drivers of sustainability in government services.

The United Nations established 17 Sustainable Development Goals (SDGs) to focus on eliminating poverty, safeguarding the environment, and ensuring overall prosperity (Ishengoma and Shao, 2025). Here, the industry-5 technologies are expected to play a crucial role in sustainable use of resources. The Industry-5 technologies are primarily concerned with human-machine collaboration in the creation of sustainable and resilient systems and services. Artificial intelligence, blockchain, the internet of things, and cloud computing, are critical components that must be integrated to develop sustainable systems. Therefore, these are critical components of public service delivery systems, improving the effectiveness of electronic and mobile government services and moving towards sustainable practices (Anshari et al., 2025). These technologies are also important in the construction of sustainable smart cities, and the framework for doing so is being investigated and developed through research (Ahmed et al., 2022).

# PROFESSIONAL COPING AMONG STREET-LEVEL BUREAUCRATS IN VIETNAM: EXPLANATION FROM JOB CHARACTERISTICS AND JOB OUTCOMES

**Han Nu Ngoc Ton (Corr.).**

*Vice Head and Lecturer, Center for Public Administration, International University, Vietnam National University, Ho Chi Minh City, Vietnam*

**Trang Minh Tran-Pham**

*Bachelor, School of Business, International University, Vietnam National University, Ho Chi Minh City, Vietnam*

**Tran Quang Tuyen**

*Master student, Center for Public Administration, International University, Vietnam National University, Ho Chi Minh City, Vietnam*

**Chanh Thanh Minh Nguyen**

*Master student, Center for Public Administration, International University, Vietnam National University, Ho Chi Minh City, Vietnam*

*Lecturer, Faculty of Law and Political Science, Industrial University of Ho Chi Minh City, Vietnam*

**Phuong Lan Nguyen**

*PhD, Graduate School of Public Administration, National Institute of Development Administration, Bangkok, Thailand*

## Abstract

Street-level bureaucrats are increasingly exposed to stressful conditions. Effective coping strategies, particularly those that are problem-focused and situation-specific, can mitigate the negative impacts related to job outcomes. This study aims to investigate sequencing relationships from job characteristics (e.g., occupational attributional style, co-workers support, task complexity, work pressure), professional coping, to job outcome (e.g., intention to leave) among street-level bureaucrats in three sectors (e.g., judiciary, education, tax) in Vietnam. The following research questions will be addressed:

Which job characteristics (e.g., occupational attributional style, co-workers support, task complexity, work pressure) induce professional coping among street-level bureaucrats?

How professional coping induce intention to leave among street-level bureaucrats?

Coping strategies vary depending on the specific stressful context, and their situational fit is crucial in determining the most effective approach (Folkman, 1984).



# Mapping AI Diffusion and Stakeholder Networks in Korean Manufacturing (Through Topic Modeling and OM-Centric Analysis)

Hyoung Ryul Ma, Hyo Jung Jang, Dong Hoon Oh

*OSP, Korea*

## Abstract:

### Research Question

1. What are the major AI-related topics emerging in the context of Korean manufacturing, as identified through topic modeling of news data?
2. How is AI adoption diffusing across key operations management (OM) areas—namely, Product Innovation, Smart Production, and Strategic Management—based on UTAUT theory?
3. Who are the primary stakeholders in each OM domain, and what do their network positions reveal about the structure and leadership dynamics of the AI-driven industrial ecosystem?

### Contribution

- Presents an empirical analysis of 2,236 AI-related manufacturing news articles (2021–2024)
- Extracts 20 core topics using a 3-stage LDA topic modeling approach
- Applies hierarchical clustering to identify broader thematic structures
  - Maps topics to OM domains: Product Innovation, Smart Production, Strategic Management
- Applies UTAUT framework to assess diffusion potential
- Conducts network centrality analysis to identify key public/private stakeholders and interpret the structure of the industrial ecosystem

### Literature Review

- Park et al. (2022): Network structure of the digital healthcare ecosystem
- Jung et al. (2024): News-based supply chain risk analysis in healthcare
- Lee et al. (2023): GenAI trends via BigKinds and ChatGPT impact
- Grover et al. (2022): Review of AI adoption in operations management
- Jackson et al. (2024): Generative AI capabilities in supply chains
- Venkatesh et al. (2024): Research agenda for AI adoption in OM

### Topic Modelling

- Proposed in 2003, Latent Dirichlet Allocation (LDA) is one of the most widely used topic modeling techniques today.

# Redesigning Pet Registration Systems for Pet Welfare Enhancement: A UX and Service Design Approach to Responsibility and Behavioral Engagement

**Seohyo Ahn**

*Master, Candidate, Intermedia Lab, dept of Design, Seoul National University, South Korea*

**Juhyun Eune (Corr.)**

*Prof., Intermedia Lab, dept of Design, Seoul National University, South Korea*

## Abstract

This study critically examines the structural limitations of the existing pet registration system and proposes a redesign model based on user experience (UX) and service design principles, focusing on responsibility awareness and behavioral engagement. The current registration system primarily functions as a legal proof of ownership and fails to effectively foster the caretaker's responsibility or behavioral change. This research reconceptualizes the registration process as an ethical experience in which the caretaker "declares" their welfare responsibility and integrates features such as welfare-based data input, score-based feedback, and a periodic reminder system. Through international case analysis and user scenario flow comparisons, the feasibility of the proposed model is assessed. The results indicate that the pet registration system can transition from a mere administrative process to an ethical platform. This study demonstrates that UX and service design can be strategic tools for structuring moral practices.

Keywords : Pet Registration System, Service Design, User Experience (UX), Responsibility Awareness, Behavioral Engagement, Pet Welfare, Ethical Design, Responsibility Declaration, Behavior Modification, Welfare Data, Score-Based Feedback, Reminder System, Pet Ownership, UX Strategy, Public-Private Collaboration, Digital Platform, Pet Abandonment Prevention.

# A Study on the B2G Model for Public Application of Room Escape Game-Based (EER) Sex Education: A Proposal of the SEER Framework

**Siwon Park(First Author)**

*Master, Seoul National University, South Korea*

**Juhyun Eune(Corr.).**

*Professor. Ph.D, Internedia Lab, Seoul National University, South Korea*

## **Abstract**

The traditional approach to sex education fails to effectively engage learners and suffers from low learning retention. Lecture-based education often results in passive learner attitudes and presents challenges in real-world application. In contrast, experiential learning and gamification elements foster active participation, enhance immersion, and facilitate the effective internalization of learning content. This study explores how escape room-based sex education can address the limitations of conventional methods and examines its feasibility within the public education system. To achieve this, the study will review existing sex education policies, analyze international cases of experiential sex education, and propose a structured escape room format designed to maximize learning effectiveness. Furthermore, the research aims to develop a Business-to-Government (B2G) model that enables public institutions to sustainably operate experiential sex education programs. By fostering collaboration between government agencies and private enterprises, this study seeks to enhance the quality of sex education and propose a strategic approach that yields more substantial educational outcomes. Ultimately, this research presents an innovative public sex education model incorporating gamification and experiential learning principles while assessing its policy implementation feasibility.

According to existing research, Game-Based Learning (GBL) has been proven effective in increasing learner engagement and enhancing conceptual understanding. One study demonstrated that incorporating game-based learning in programming education led to improved knowledge acquisition and enriched learning experiences among students. Similarly, education methods utilizing escape room games have been shown to enhance learners' problem-solving skills and collaborative thinking. This study highlights that when escape rooms are employed as educational tools, students experience increased learning immersion, improved teamwork, and enhanced logical reasoning skills.

## Proposed Mentoring Program Model to Support North Korean Women's Settlement

**Seojin, Hong**

*Master Candidate, Seoul National University, South Korea*

**Juhyun, Eune (Corr.).**

*Prof., Intermedia Lab, Seoul National University, South Korea*

### **Abstract**

North Korean female defectors often experience identity confusion and social isolation in the new environment of South Korea, leading to psychological stress and difficulties in adaptation. While they have received initial settlement support through the Hana Center under the Ministry of Unification, there has been insufficient long-term support for social integration and psychological stability. This study proposes a mentoring program model to address the cultural and psychological challenges faced by these women.

Using a business model framework, the study analyzes value propositions, customer segments, channels, and revenue models, and establishes an implementation plan focused on building social networks. Collaboration with the Ministry of Gender Equality and Family, the Ministry of Education, and the Ministry of Unification is proposed, along with corporate sponsorships to ensure sustainability. The program leverages both online and offline mentor-mentee matching as its main channels to engage participants while offering companies an opportunity to fulfill their ESG commitments.

Key expenses include operational labor costs, the creation of educational content, and promotional activities. The project is designed to proceed through a three-phase roadmap: a pilot operation in phase one, expansion and evaluation in phase two, and the establishment of a self-sustaining network in phase three. Unlike existing settlement support programs that primarily focus on livelihood and housing stability, this mentoring program distinguishes itself by emphasizing cultural adaptation and economic independence. The ultimate goal is to facilitate the smooth integration of North Korean female defectors into South Korean society, fostering both social and economic sustainability.

# Strategic Private Equity Investment in Open Innovation Ventures and SMEs

**Minseo Jung**

*(University of Chicago)*

## **Abstract**

This study explores the strategic role of private equity (PE) investment in fostering the growth and success of open innovation ventures and small and medium enterprises (SMEs). Drawing on the theoretical foundations of open innovation and resource-based theory, the research highlights how PE investments provide not only capital but also critical managerial expertise, strategic guidance, and access to networks that enhance innovation capacity and competitiveness. By analyzing key success factors, such as alignment between investor and firm objectives, sector-specific expertise, and the ability to navigate market uncertainties, this study identifies best practices for optimizing PE investments in SMEs and innovation-driven enterprises. The findings offer actionable insights for PE firms, entrepreneurs, and policymakers aiming to maximize the impact of private equity in fostering sustainable innovation and growth. Keywords: Private Equity Investment, Open Innovation, Strategic Investment, Innovation Capacity, Resource-Based Theory

# Leveraging Open Innovation to Enhance ESG Solutions in Small and Medium Enterprises

**Yoonseo Jung**

*(Princeton University)*

## **Abstract**

This study investigates how small and medium enterprises (SMEs) can leverage open innovation to develop effective Environmental, Social, and Governance (ESG) strategies. Open innovation fosters collaboration across organizational boundaries, enabling SMEs to access external knowledge, resources, and partnerships to address ESG challenges more effectively. The research highlights the role of innovation ecosystems and stakeholder engagement in enhancing sustainability practices and creating shared value. By examining successful case studies and proposing actionable frameworks, this study provides practical insights for SMEs to integrate ESG principles into their operations while maintaining competitiveness. The findings aim to guide policymakers, industry leaders, and SMEs in building resilient and sustainable business models through open innovation.

Keywords: Open Innovation, ESG Solutions, SMEs, Collaborative Innovation

# Determinants of AI adoption across sectors and technological intensity

Changhyeon Song<sup>1</sup>, Harry Jeong<sup>2</sup>, Kwangsoo Shin<sup>3,\*</sup>

<sup>1</sup> Office of S&T Policy Planning, Korea Institute of S&T Evaluation and Planning, Eumseong 27740, Republic of Korea

<sup>2</sup> Central Research Institute, Dr. Chung's Food Co., Ltd, Cheongju 28446, Republic of Korea;

<sup>3</sup> Graduate School of Public Health and Healthcare Management, Songeui Medical Campus, The 11 Catholic University of Korea, Seoul 06691, Republic of Korea;

## Abstract

As artificial intelligence (AI) becomes increasingly central to business innovation and competitiveness, recent years have witnessed a surge of empirical studies examining the factors that influence its adoption. However, despite growing interest, there is still limited empirical evidence on how the statistically significant determinants of AI adoption differ between manufacturing and service sectors, as well as across industries with varying levels of technological intensity. This study addresses this gap by identifying key factors associated with AI adoption using the Technology-Organization-Environment (TOE) framework. It further examines how these significant factors differ between the manufacturing and service sectors, and also how they vary across four groups within the manufacturing sector, classified by technological intensity as high, medium-high, medium-low, and low. Using firm-level data from Korea with Firth's penalized logistic regression, the results show that big data utilization, organizational proactiveness in digital transformation, and government technical support are statistically significant drivers of AI adoption across both manufacturing and service sectors. In addition, high-tech industries are more influenced by software-based infrastructure, while low-tech industries are more closely associated with hardware and equipment-related conditions. These findings offer practical implications for promoting AI adoption by highlighting the importance of policy approaches that address sector-specific differences in technological infrastructure, organizational capacity, and external institutional support, as conceptualized within the TOE framework.

**Keywords:** AI adoption, Technology-Organization-Environment (TOE) framework, Manufacturing and service sector, Firth's penalized logistic regression

# The adoption and impact of open innovation practices on the performance of firms: A case study of the Indian biotech industry

**Aishwarya Narayan,**

*Senior Consultant at KPMG, Australia, Nationality - Indian*

**Sumukh S Hungund**

*Department of Humanities and Management, Manipal Institute of Technology, Manipal Academy of Higher Education, Manipal, India – 576104, Nationality - Indian*

**Lidwin Kenneth Michael**

*Department of Humanities and Management, Manipal Institute of Technology, Manipal Academy of Higher Education, Manipal, India – 576104, Nationality - Indian*

## **Abstract:**

This research aims to analyse the two innovation strategies employed by biotechnology enterprises in the Indian subcontinent and their impact on performance metrics. This article examines the adoption of closed and open innovation approaches and their impact on performance metrics within biotechnological enterprises. The study selects biotechnology enterprises situated in prominent industrial centres in India. The established framework is evaluated using a sample of 200 enterprises. The findings indicate that both closed and open innovation techniques are extensively utilised. The closed and open innovation approaches enhance the firm's overall innovation and performance outcomes. The firm's performance serves as a mediating variable that favourably impacts economic performance, in contrast to the consequences of innovation performance.

The primary issue for any entrepreneur is the expansion of the business operation. To be competitive in the market, organisations must not depend exclusively on internal R&D, hence rendering their boundaries permeable (Arvanitis & Bolli, 2012). Currently, numerous companies seek knowledge and technology from external sources in conjunction with their internal resources to maintain competitiveness in the global market. The notion of open innovation has garnered attention from both the corporate and academic spheres. Open innovation enables organisations to achieve company growth through the development of new products (Freel, 2006). Companies implement open innovation strategies primarily for the advancement of new product development (Chesbrough & Crowther, 2006).



# The Effects of Convergence Research and Research Quality on National R&D Investment: A Cross-sectional Cohort-based Multilevel Analysis

Woojoong Kim 1, Sunghyung Kong 2, Ahyoung So 3, Kyunghye Lee 4,  
Dongsoo Paik 5, Hyewhon Rhim 6, and Sangok Choi 7,\*

1-4 *Future Convergence Strategy Center, Korea Institute of Science and Technology, Seoul 02792, Korea*

5 *National Security Technology Group, Korea Institute of Science and Technology, Seoul 02792, Korea*

6 *Brain Science Institute, Korea Institute of Science and Technology, Seoul 02792, Korea*

7 *Program in Science and Technology Studies, Korea University, Seoul 02841, Korea*

## Abstract:

This study investigates the determinants of South Korea's R&D budget allocation, focusing on whether convergence and research quality influence funding decisions. Using data from 2017 to 2021, we combine national R&D investment records with convergence indices (Rao-Stirling diversity), research quality measures (excellence and share indices). Applying a multilevel nonlinear regression model, we assess how these factors shape investment patterns across life sciences, engineering, and social sciences, further categorized into 15 field-age cohorts, defined by peak publication years. The results reveal that convergence positively affects research quality up to a threshold, after which excessive convergence reduces quality, suggesting an inverted U-shaped relationship. Additionally, high-quality fields tend to receive greater funding, supporting the rationale for performance-based allocations. The study highlights how different theoretical models—incrementalism, rationalism, and punctuated equilibrium—complementarily explain budget dynamics. Overall, the findings offer evidence-based insights for optimizing R&D policy by aligning funding with the maturity and quality of research fields.

Keywords: R&D budget allocation; convergence; research quality; Rao-Stirling diversity; multilevel analysis; incrementalism; rationalism

# Analyzing between contents and results of the project for fostering regional women in STEM in context of open innovation

**Saimi Woo**

*Senior Researcher, BISTEP, Republic of Korea*

## **Abstract**

### Purpose:

The purpose of this study is to determine whether the contents of the project of fostering regional women in STEM are in line with the project's goals. In addition, by analyzing the context in which this program is being conducted, we will examine how gender plays a role in innovation.

### Research Question:

1. Do the contents of the project of fostering regional women in STEM reflect the program's goals?
2. Do the contents of the project of fostering regional women in STEM accommodate open innovation?

### Design/ Methodology/ Approach:

Understanding the characteristics of the project contents and the meaning of achieving the business goals through analysis of the regional project results report for the past 7 years and interviews with project managers.

### (Expected) Findings/Results:

(TDB) The contents of the project may not have reflected the goals of the project.

The project appears to have been operated openly through inter-agency cooperation, but it may have been operated in a closed manner.

The project may have provided an opportunity for policy experimentation on the policy of fostering female scientists and engineers.

### Research limitations:

This study analyzes only one region.

### Implications:

To achieve the project goals, it is necessary to pursue an open strategy.

Keywords: Women in STEM, DE&I, Gender innovation

### Reference

Pukyung National University. Results of the R-WeSET regional project(2017~2023).

## Legal framework for crypto-currencies and digital assets in Vietnam

**Nguyễn Minh Thảo, PhD**

*Senior Lecturer, Thuongmai University (TMU), Vietnam*

**Pham Thanh Nga, LL.M**

*Guest Lecturer, National Economics University (NEU), Vietnam*

### **Abstract**

In recent years, crypto-currencies and digital assets transaction have increased very quickly around worldwide. Following that global trend, there are many fin-tech companies have established to provide the fin-tech service in Vietnam now. Beside the positive impact on the national economics, these activities make some negative on the market so far. Therefore, to protect the environmental business, Vietnam has enacted some new law and regulation to govern the crypto-currencies and digital assets transaction. In this paper, the authors will analyze the facts of regulating and implementing legal policy of the crypto-currencies and digital assets in Vietnam today. Then, the authors propose solutions to improve the problems related to the legal frameworks of them in the future.

**Keywords:** crypto-currencies, digital assets, legal policy, fact, solution, Vietnam

# The impact of networks of social economy enterprises on economic and social performance

Byungyun Bae<sup>1</sup>, and Sungyong Choi<sup>2\*</sup>

*<sup>1</sup>Assistant Professor, Division of Business Administration, Halla University, Wonju 26404, South Korea.*

*<sup>2</sup>Professor, Division of Business Administration, School of Business, Hanyang University, Seoul 04763, South Korea.*

## Abstract:

This study empirically examines the relationship between the networks of social economy enterprises and their economic and social performance. While academic research on the sustainable growth and performance of general enterprises has been conducted, empirical studies on the networks and performance of social economy enterprises remain insufficient. This study aims to enhance knowledge in the fields of social economy and business by conducting empirical research to identify the factors contributing to the performance of social economy enterprises. This study conducted an empirical analysis using data from 781 social economy enterprises in South Korea that are legally structured as corporations under the Commercial Code, such as joint-stock companies. The analysis revealed the following results: First, there was a significant positive (+) relationship between the networks of social economy enterprises and their economic performance. Second, there was a significant positive (+) relationship between the networks of social economy enterprises and their social performance. Third, the economic performance of social economy enterprises had a significant positive (+) relationship with their social performance. Finally, the networks of social economy enterprises had a significant indirect effect as a mediating variable between economic performance and social performance. The implications of this study are as follows: First, networks act as a core element in the success of social economy enterprises. Second, the networks of social economy enterprises directly influence social performance and also influence social performance through the mediating effect of economic performance.

Keywords: social economy enterprises, networks, economic performance, social performance

# Strategic Sourcing for Critical Needs: Balancing Costs, Risks and Sustainability in Operations

**Evi Rahayu Izzah**

*Master Student, Sekolah Tinggi Manajemen PPM, Indonesia*

**Erlinda N. Yunus (Corr.)**

*Associate Professor, Sekolah Tinggi Manajemen PPM, Indonesia*

## Abstract

This study explores procurement strategies for strategic items categories—classified as high profit impact and high supply risk under the Kraljic Matrix—specifically within IT and business process optimization domains. Focusing on PT XYZ, an Indonesian insurance company, the research evaluates how tailored procurement strategies, integrated with long-term vendor relationship management, mitigate risks, enhance operational efficiency, and align with sustainability goals. Qualitative data from stakeholders reveals that Kraljic-driven categorization, combined with ABC classification, reduces procurement lead times for IT infrastructure and improves compliance process. This study aims to explore the factors of long-term vendor strategic that can enhance business process while considering cost and profit. The study contributes a framework for optimizing strategic procurement through risk-adjusted sourcing models, innovation strategies, and strengthened vendor relationships.

It's to develop and validate procurement strategies for high-risk, high-value IT and Business Process Optimization (BPO) categories using the Kraljic Matrix framework, enhancing vendor's long term strategic.

The research Questions, how does Kraljic-based categorization improve risk management for IT and business process procurement, what factors of long-term vendor strategic that impact process and profit and how can process optimization enhance value creation for critical procurement categories? The Kraljic Matrix provides a framework for categorizing procurement items based on profit impact and supply risk, helping organizations prioritize resources effectively (Kraljic, 1983). In the context of IT procurement, strategic items such as infrastructure, IT outsourcing and cybersecurity solutions often represent a high share of operational risk despite accounting for a smaller portion of overall spending (Keemers, 2022). This is exemplified by the potential vulnerabilities in PT XYZ's actuarial software procurement, where vendor lock-in could disrupt pricing models.

# Exploring the Impact of Social Media Sustainability Narratives: Quantitative Content Analysis of Facebook Pages of Creative Industries in Latvia

**Jūlija Prata (Corr.)**

*Ph.D. Student, Tuñba University, Latvia*

**Deniss Sceulovs**

*Professor Dr.oec., Riga Technical University, Latvia*

**Zane Driņķe**

*Professor Ph.D., Tuñba University, Latvia*

**Valdis Luks**

*Ph.D. Student, Tuñba University, Latvia*

## Abstract

This research investigates how Latvian creative industries utilize Facebook to articulate sustainability narratives across environmental, social, and economic dimensions, by employing a quantitative content analysis of 1626 Facebook posts from six selected Latvian cultural institutions (three in Riga, three in regional centers) published throughout 2024. The findings reveal distinct patterns with the three pillars of sustainability. Environmental Sustainability Narratives (ESN) were prominent, with regional institutions dedicating a significantly higher percentage of posts (average 65.62%) compared to their Riga-based counterparts (42.65%). "Ecological issues" was the most common ESN sub-theme, while complex topics like "climate change" received minimal attention. Social Sustainability Narratives (SSN) emphasized "cultural education", "affordable access", and "social well-being", particularly in regional institutions. However, critical areas such as "social equity" and "inclusion of minority groups" were largely underrepresented. Economic Sustainability Narratives (EcSN) were predominantly focused on "funding and sponsorship", with limited discourse on "long-term viability" or broader "economic contributions", though one regional institution notably highlighted local economic impact. The "Sustainability Diversity Score" indicated that regional institutions generally addressed a wider array of sustainability sub-themes, suggesting more holistic communication strategies. The research concludes that while Latvian creative institutions engage with sustainability on social media, there are significant opportunities to deepen and broaden this discourse, particularly concerning environmental, social issues and comprehensive economic sustainability.

## How AI helps team autonomy?

**Joe Justice**

*Agile Business Institute*

**Kazutaka Sankai**

*OGIS-RI Co.*

**Yuri Sadoi**

*Meijo University, Japan*

### Abstract

In recent years, the rapid development of Generative AI (Generative Artificial Intelligence) has shaken the very foundations of business management. These technologies are expected to greatly replace and complement the areas that were previously considered to be the intellectual activities of humans, and are expected to improve the efficiency of corporate operations, enhance the sophistication of services, and create new business opportunities. In particular, in order for companies to respond agilely and flexibly in a rapidly changing business environment, the question is how to utilize generated AI as a core technology to support strategic decision making and innovation creation, rather than as a mere cost reduction tool.

In recent years, the low cost of IoT devices and the proliferation of cloud services have made advanced IT utilization, which used to be mainly used by large enterprises, accessible to small and medium-sized enterprises (SMEs). With proper utilization, even SMEs with limited resources can achieve groundbreaking innovations in product development, service provision, and internal operations. Thus, DX has the potential for SMEs to compete on an equal footing with large corporations, and the rapid spread of generative AI is further narrowing this gap. This is because advanced analytics, content creation, business automation, and IT systems specialized for their own operations are now available at prices that are orders of magnitude less expensive than in the past.

In reality, however, many SMEs are not fully utilizing the potential of DX and generative AI. This is thought to be due to the barriers of management's lack of understanding of digital technology and resistance to change in work places. On the other hand, there are many SMEs that have a culture of on-site improvement (Gemba Kaizen), where people on site set their own issues and solve them through trial and error. Therefore, there is great potential for a culture that values on-site autonomy and the support provided by Generation AI.

# Succession in Driving Innovation within Family-Owned Businesses in Japan

**Yuri Sadoi**

*Professor Dr., Faculty of Economics, Meijo University, Japan*

**Sergei Shaposhnikov**

*Associate Professor, Ph.D., Graduate School of Business, HSE University, Russia*

## Abstract

Family businesses are the dominant form of business in both the West and the East, where they are an important component of the regional economy, providing employment, sustainable growth and the preservation of cultural traditions. Family businesses dominate the private sector in many Asian countries, accounting for up to 85% of the region's economic activity. In Japan, more than 90% of companies are family businesses, and more than 37 thousand of them have been in existence for over 100 years, which highlights their sustainability and focus on long-term development. Family-owned businesses (FOBs) are a cornerstone of the Japanese economy, accounting for a significant share of employment, GDP, and regional development (METI, 2020). These firms often embody the principles of longevity, stability, and deep community ties. However, they also face unique challenges in transferring leadership and adapting to innovation-driven market environments. Yet, these businesses face a dual challenge in the 21st century: *managing generational succession while simultaneously pursuing innovation and transformation in an increasingly competitive and globalized market.*

While extensive literature exists on succession planning and innovation in FOBs, empirical and conceptual work focusing specifically on the Japanese context remains limited. Most existing studies have been conducted in Western settings, where cultural norms, governance practices, and institutional frameworks differ significantly from those in Japan (Sharma et al., 2003; Le Breton-Miller et al., 2004). In particular, the unique characteristics of Japanese FOBs such as long-term orientation, the *yōshi-engumi* system of adoptive succession, and strong adherence to hierarchical and familial traditions have not been sufficiently examined in relation to their impact on innovation. Moreover, while some Japanese studies address the succession crisis due to aging business owners, they often focus on succession planning or firm survival, rather than innovation outcomes.



## Drivers of Innovative Work Behavior in Public Organizations: A CatBoost–SHAP Approach

**Min Han Kim,**

*Assistant Professor, Sangmyung University*

**Kyungdong Kim,**

*Assistant Professor, Kwangwoon University*

### Abstract

This study investigates the predictors of innovative work behavior (IWB) among public sector employees by employing a machine learning model (CatBoost) enhanced with explainable artificial intelligence techniques (SHAP and ICE). It aims to uncover how individual, relational, and structural factors influence IWB in bureaucratic contexts.

Design/methodology/approach

Using data from over 6,000 public officials in South Korea's central and local governments, the study applies the CatBoost algorithm to predict IWB, followed by SHAP and ICE analyses to interpret model outputs. Variables include organizational commitment, leadership styles, justice perceptions, organizational culture, and demographic characteristics.

The results highlight organizational citizenship behavior (OCB), job satisfaction, public service motivation (PSM), and organizational commitment as the strongest predictors of IWB. Transformational leadership, post-bureaucratic culture, and interactional justice also show meaningful contributions. Contrary to expectations, demographic attributes exert relatively weak effects. The SHAP values and ICE plots reveal both global and conditional impacts, illustrating nonlinear interactions and trade-offs among variables.

This study contributes to the growing literature on behavioral innovation in public administration by combining high-performing machine learning methods with interpretable modeling tools. It advances understanding of how multi-level predictors operate in tandem to shape innovation behavior and demonstrates the analytical value of integrating AI techniques into public management research.

Keywords: Innovative work behavior, Public organizations, CatBoost, SHAP, Machine learning, Public sector innovation, Explainable AI

# Fractal Features of Knowledge Networks

Runhui Lin<sup>1,2,\*</sup>, Meichen Chen<sup>1</sup>

*1 Business School, Nankai University;*

*2 China Academy of Corporate Governance, Nankai University.*

## Abstract:

Knowledge innovation increasingly relies on complex network structures, and network research has provided many insights for innovation. However, in the field of innovation management, current research on the impact of knowledge networks on innovation performance mainly focuses on static local characteristics of networks, neglecting their global structural features. Based on an exploration of the fractal characteristics of knowledge networks, this study constructs a theoretical model linking the fractal properties of enterprise knowledge networks to innovation performance. Additionally, it investigates the moderating role of the quantity of knowledge elements in the relationship between the fractal dimensions of knowledge networks and innovation performance. Hypotheses were tested using patent data submitted by Huawei in China from 1995 to 2021. The results show that small-scale fractal dimensions have a significantly negative impact on innovation performance, while large-scale fractal dimensions exert a positive effect on innovation performance. Furthermore, an increase in the quantity of knowledge elements weakens these effects.

Key words: Fractal Feature, Knowledge Network, Innovation Performance

# The strategic use of digital transformation capability: a meta-analytic approach

**Chang, Woojung**

*University of Seoul*

**Jeong-Bin Whang\***

*Jeju National University,*

**Jong-Ho Lee**

*Korea University*

## Abstract

Purpose – Despite growing interest, research on the impact of digital transformation capability on firm performance remains fragmented and inconsistent, limiting our understanding of when digital transformation capability drives superior outcomes. To address this gap, we develop a holistic conceptual model – grounded in resource-based theory and the TOE framework – that incorporates both internal and contingency factors. We then conduct a meta-analysis to empirically synthesize existing findings and pinpoint the conditions under which digital transformation capability most effectively enhances firm performance.

Design/methodology/approach – Drawing on 506 effect sizes from 243 independent samples, we employ a hierarchical linear meta-analysis to determine the specific contexts in which firms' digital transformation efforts pay off in terms of digital transformation focus as well as technology-, organization-, and environment-related factors.

Findings – Our meta-analysis reveals that digital transformation capability significantly improves firm performance, with having the strongest effects on innovation and efficiency outcomes. These benefits are amplified when digital transformation is guided by value creation objectives and strategic vision, rather than by digital technology adoption or integration. Additionally, digital transformation efforts yield greater returns in contexts characterized by high digital readiness and relevance and high market competitiveness, in cultures with high power distance and collectivism, and among large and manufacturing firms.

Originality/value – This conceptual and empirical integration advances our knowledge of the conditions that maximize the benefits of digital transformation capability and offers a solid and comprehensive foundation that future researchers can build upon.

# How Earthquake Shocks Affect Executives' Excess Perk Consumption: A Quasi-Natural Experiment from the Wenchuan Earthquake

**Weian Li**

*Chair Professor, China Academy of Corporate Governance, Nankai University, Tianjin 300071, China*

**Wei Zhang**

*Ph.D. candidate, School of Business Administration, Dongbei University of Finance and Economics, Dalian 116025, China*

**Mingyang Gao**

*Ph.D. candidate, Business School, Tianjin University of Finance and Economics, Tianjin 300221, China*

## Abstract

This paper uses data from Chinese listed companies between 2005 and 2011 and constructs a difference-in-differences (DID) model based on the Wenchuan earthquake to examine the impact of earthquake shocks on executives' excess perk consumption. The study also focuses on exploring the potential channels through which these effects occur. The study finds that earthquake shocks suppress executives' excess perk consumption behavior. Moreover, this suppressive effect weakens as the distance between the executives and the earthquake epicenter increases, indicating the presence of a "ripple effect." The mechanism test reveals that this effect primarily occurs through the suppression of executives' risk-taking behavior. The moderation effect analysis shows that when the proportion of female executives is high, the average age of executives is older, the proportion of independent directors is higher, or in state-owned enterprises, the impact of earthquake shocks on suppressing executives' excess perk consumption is stronger. The economic consequence test reveals that earthquake shocks reduce Type I agency costs by suppressing executives' excess perk consumption, with no significant impact on Type II agency costs. The study's findings not only enrich the research in areas such as the economic consequences of natural disasters, executive behavior, and corporate governance, but also provide practical insights for companies on how to reasonably cope with the post-disaster risk impacts of natural disasters.

**Keywords:** Natural Disasters; Earthquake Distance; Risk Perception; Excess Perk Consumption; Emergency Governance

# Governance Roles in Open Innovation Ecosystems: Exploring Challenges, Opportunities, and Emerging Concepts

**Kristaps Banga (Corr.)**

*Ph.D. Student at Riga Technical University, Faculty of Engineering Economics and Management. Accenture  
Senior Innovation Executive.*

**Elīna Gaile - Sarkane**

*Professor, Riga Technical University, Faculty of Engineering Economics and Management*

## Abstract

In an era defined by accelerating complexity, interdependence, and technological disruption, innovation ecosystems (IEs) have emerged as vital structures for collaborative value creation. These ecosystems extend far beyond the boundaries of individual organizations, comprising a network of interlinked actors-firms, governments, intermediaries, civil society, and academia- collaborating under various formal and informal governance regimes (Autio et al., 2018; Bogers et al., 2017). Within such ecosystems, the strategic imperative of effective governance has intensified. As innovation becomes increasingly distributed and emergent, managing coordination, alignment, and value capture among diverse stakeholders has become a pressing challenge (Cavallo et al., 2023; Shen et al., 2023).

Historically, innovation management research has examined governance either as a structural condition (e.g., market vs. hierarchy) or as a function of orchestrator power, often centered around dominant platform firms or institutional actors (Dhanaraj & Parkhe, 2006; Adner, 2017). However, this perspective inadequately accounts for the fluid, negotiated, and multi- layered nature of governance roles observed in contemporary ecosystems, particularly in open innovation (OI) contexts (Hurmelinna-Laukkanen & Möller, 2023). The shift toward open innovation ecosystems (OIEs) introduces new modes of value co-creation, role specialization, and emergent coordination mechanisms that challenge static or hierarchical models (Chesbrough, 2020; Fasnacht, D. 2018; West et al., 2014).

At the core of this transition is a rethinking of governance as not solely a function of control, but as a dynamic process involving interaction logics, feedback loops, and adaptive role fulfillment.

# How does the campus architecture design motivate open innovation?-Comparative analysis among Apple park campus, Dyson Malmesbury campus, and DGIST campuses

**Jinhyo Joseph Yun (First, and Corr.)**

*DGIST and Open Innovation Academy, South Korea*

**Xiaofei Zhao,**

*DGIST and Open Innovation Academy, South Korea*

**KyungBae Park,**

*Sangji University, South Korea*

**Heungju Ahn(Co-corr.),**

*DGIST, South Korea*

**Zheng Liu.**

*University of Greenwich,, UK*

**Tan Yigitcanlar,**

*Queensland University of Technology, Australia*

## Abstract

Accumulation of capital with the development of capitalism had motivated the urbanization and expanded the boundary of urban in most of industrialized countries. In other words, capitalism triggered the spatial moving of capital and labor(Harvey 1982). Recent, urbanization has been accelerating the vertical accumulation of buildings, in other words, the vertical urbanization (Greco 2018).

By the way, other perspectives of spatial economics like the regional innovation system or cluster, have focused on systems which could expediate the innovation of belonging agents (Cooke, Uranga, and Etxebarria 1997). Now, spatial economics of innovation has been developed as the regional ecosystem (Hillebrand, Bennett, and Cadotte 2008).

There exist diverse studies on the vertical urbanization with the accumulation of capitalism, and the innovation of the spatial economics separately. But, studies on the innovation at the level of the vertical urbanization, in other words, innovation at the building or campus architecture are rare.

# Understanding Market-Based Capability of Korean Firms on the Basis of Dynamic Capability and Resource-Advantage Theory

**Sohyoun Shin**

*Professor of Marketing, California State University, Chico, U.S.A.*

**Sungho Lee**

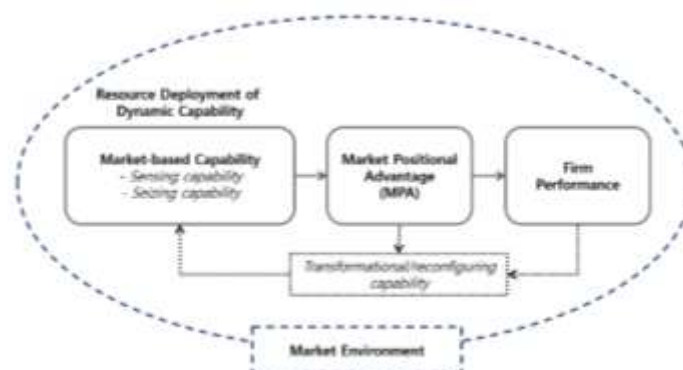
*Professor of Marketing, University of Seoul, Republic of Korea*

## Abstract

This research identifies market-based capability dimensions on the basis of Teece's first two classes of dynamic capabilities—*sensing* capability and *seizing* capability, and investigates their impacts on firm performance with a data set of Korean firms. By adding the Resource-Advantage theory as a complementary theory, the concept of market positional advantage is introduced and empirically tested as an assessment post linking the capability dimensions and firm performance. With a survey data set, *seizing* capability dimensions of market-based capability—product management capability, customer management capability, and supply chain management capability—are found to positively influence firm performance through market positional advantage. As a *sensing* capability, market-insight capability is proven to affect the three capability dimensions, indicating its critical leading role in building organizational resource/capability collection. As the firms' own idiosyncratic process of feedback and resource re-composition repeats, we argue that the last class of Teece (2007)'s DC—transformational/reconfiguring capability—can be cultivated.

**Conceptual Framework:** Conceptual model is presented in Figure 1, and the dimensions of market-based capability is presented in Table 1. And the research model is delineated in Figure 2.

**Figure 1: Conceptual Model**



# Dynamics Between the Enablers of Fintech Adoption: A Case of India

**Deepa Prabhu**

*Post Graduate Student, Department of Humanities and Management, Manipal Institute of Technology,  
Manipal Academy of Higher Education, Manipal, India.*

**Mahesh Prabhu H (Corr.)**

*Assistant Professor (Senior), Department of Humanities and Management, Manipal Institute of Technology,  
Manipal Academy of Higher Education, Manipal, India.*

## Abstract

The last decade has seen an increased use of technology in personal finance (Agarwal & Zhang, 2020) and, hence, has become an important field of investigation among scholars. The utilization of technology to provide customers with financial services is called 'FinTech' (Puschmann, 2017). 'FinTech' is only the integration of the words 'Finance' and 'Technology,' and it includes but is not limited to areas like banking, insurance, and investing (Puschmann, 2017). The digital payments in India or the fintech penetration is around 87%, although higher than the global average penetration rate of 64% (Sengupta, 2023; Singh *et al.*, 2021), showing a significant amount of untapped market. Customers usually access fintech services through smartphones, and the primary reason for using fintech services via smartphone is convenience (Fan, 2020; Hikida & Perry, 2020); nevertheless, skepticism about the technology has been a frequent justification for not using it (Shabbirhusain *et al.*, 2023).

The initial studies on fintech primarily focused on the adoption of Internet banking (Casaló *et al.*, 2007; Chen, 2008; Khan *et al.*, 2017; Zhou, 2011). This was followed by a few studies that identified the factors that drive the adoption of fintech through a detailed review of extant literature (Kwetson *et al.*, 2020; Sangwan *et al.*, 2020). Further, a few more studies have empirically validated the impact of these factors on adoption intention (Qatawneh *et al.*, 2024; Srivastava *et al.*, 2024). However, the mere identification of these factors and their empirical validity is of incomplete support for fintech service providers to increase fintech adoption among customers. Thus, this investigation proposes to bridge this gap by identifying all the factors that support fintech adoption among customers and then exploring the dynamics between them by capturing the thought processes of fintech experts.



# Public Sentiments Factors Affecting the Continuance Intention of Fintech Lending in Indonesia

**Widyarso Roswinanto\***

*Associate Professor, Sekolah Tinggi Manajemen PPM, Jakarta, Indonesia*

**Muhammad Akhsanur Rofi**

*Lecturer, Sekolah Tinggi Manajemen PPM, Jakarta, Indonesia*

## Abstract

Peer-to-peer (P2P) lending platforms, in particular, have revolutionized the financial services industry due to the swift development of financial technology, or fintech. The factors influencing continuing intention have received little attention, despite the fact that fintech adoption has been extensively researched. Through the integration of the Expectation-Confirmation Model (ECM) and the Unified Theory of Acceptance and Use of Technology (UTAUT), this study investigates important aspects impacting the retention of fintech users in Indonesia. This study examines how perceived ease of use, self-efficacy, trust, satisfaction, and habit affect continuance intention through an empirical investigation with 228 respondents. According to the results of structural equation modeling (SEM), perceived ease of use increases confirmation and happiness, while habit and trust are important factors in keeping consumers. Confirmation does not, however, directly affect the intention to continue, underscoring the need for more study. The study gives fintech platforms practical advice on how to improve user experience, build trust, and encourage recurring engagement for long-term success.

Financial technology (fintech) has revolutionized access to financial services, particularly in emerging markets like Indonesia, where traditional banking services are often limited. Fintech lending, including peer-to-peer (P2P) platforms, facilitates broader financial inclusions for micro, small, and medium enterprises (MSMEs) and unbanked individuals. While adoption rates have soared, user retention remains a challenge.

# IMPROVING CLIMATE OUTCOMES THROUGH DISCLOSURE: THE EFFECT OF THE CSRD ON SPANISH FIRMS

**Santiago Fernández-Méndez<sup>a</sup>**

*Universidad de Santiago de Compostela*

**Beatriz Aibar-Guzmán<sup>b</sup>**

*Universidad de Santiago de Compostela*

**Cristina Aibar-Guzmán<sup>c</sup>**

*Universidad de Santiago de Compostela*

## ABSTRACT

**Purpose:** This study aims to investigate how the Corporate Sustainability Reporting Directive (CSRD) and the European Sustainability Reporting Standards (ESRS) impact the climate-related reporting practices, climate performance, and financial performance of large Spanish listed companies.

**Methodology:** The sample includes 98 companies from 2018 to 2024 (686 firm-year observations). Data were obtained from the SABI database and from a content analysis of the companies' sustainability reports. Linear mixed models and generalized linear models were employed.

**Findings:** As the implementation date of the CSRD approached, there was a progressive improvement in the quantity and quality of climate-related information disclosed. This increased transparency was also associated with improved climate performance, as measured by lower greenhouse gas (GHG) emission intensity. However, contrary to expectations, it does not lead to better financial performance.

**Originality:** This study is one of the first empirical assessments of the implications of the CSRD and its associated ESRSs.

**Research Implications:** The findings provide a thorough evaluation of how regulatory mandates affect the scope and impact of climate-related disclosures. A novel, multidimensional index to evaluate climate disclosures is proposed.

**Practical Implications:** The results can help regulators and stakeholders evaluate the overall impact of climate reporting regulations.

**Social implications:** This research aligns with global priorities for corporate sustainability within the framework of a more resilient and sustainable economy.

# Dynamic Analysis of Research and Development Productivity among European Countries

**Jaeho Jung**

*Research Professor, Korea University Institute for Future Growth, Korea University, Republic of Korea*

**Kangwon Lee**

*General Manger(Ph. D), Korea Institute for Advanced Study, Republic of Korea*

## Abstract

Around 2000, Europe began to discuss R&D Paradox after having doubts about the science and technology and economic effectiveness of R&D investment. Accordingly, this study is conducted to estimate the total amount of R&D investment and TFP, a proxy indicator of science and technology development in G10 European countries that have joined the OECD over the past 50 years (1970-2020), and to empirically analyze and compare the impact of R&D investment on economic growth and science and technology development in major European countries.

This study aims to analyze the relationship between several variables that change over time using the VAR model. The VAR model is a useful methodology for analyzing the complex interactions between R&D investment, technological innovation, and economic growth, and through impact response analysis and variance decomposition analysis, it is possible to systematically grasp the conventional relationship between them. Major studies include Liu&Xia (2018), Mtar & Belazreg (2020), and Nair et al (2020), and time series and panel VAR models were used.

The R&D Stock of all six European countries showed a positive (+) effect on economic growth and scientific and technological development, and was found to be statistically significant. However, in Germany, France, and Belgium, the effectiveness of R&D investment was higher than that of the UK, the Netherlands, and Italy. This is a result of the difference between R&D Stock and TFP in individual countries.

This study is possible to examine the dynamic relationship between the impact of a unit of R&D stock and TFP.

Major European countries generally have a low growth rate of TFP, a science and technology proxy indicator. In addition, companies are more efficient in R&D investment than governments. Accordingly, it is necessary to create synergy in R&D investment through cooperation and open innovation between governments and companies.

# Adoption and Purchase Intentions of AR Smart Glasses Among Gen Z: Analyzing Key Influences and Drivers

1.

**Anasuya K Lingappa (First Author)**

*Associate Professor, Department of Humanities & Management, Manipal Institute of Technology Manipal, Manipal Academy of Higher Education, Karnataka, India*

**Ujwal Uthappa HP**

*Student, Department of Electronics and Communication, Manipal Institute of Technology Manipal, Manipal Academy of Higher Education, Karnataka, India*

**Asish Oommen Mathew (Corresponding Author)**

*Associate Professor, Department of Humanities & Management, Manipal Institute of Technology Manipal, Manipal Academy of Higher Education, Karnataka, India*

## Abstract

Augmented reality (AR) smart glasses represent a novel technological advancement, blending digital overlays with real-world interactions. Despite their potential across various domains—ranging from gaming and entertainment to healthcare and productivity—smart glasses have struggled to achieve widespread consumer adoption. Factors such as high costs, usability concerns, and uncertain consumer perceptions hinder their market penetration (Kim et al., 2023; Lee & Kim, 2022). While major technology companies continue to invest in AR eyewear, understanding the key drivers of adoption remains an open research question. Addressing this gap is essential to bridge the divide between innovation and consumer acceptance.

This study focuses on three key questions:

How do the dimensions of motivated consumer innovativeness (functional, hedonic, social and cognitive) influence consumer attitude toward AR smart glasses?

Does price impact consumer attitude toward AR smart glasses?

Do the different aesthetic factors (colour, design, overall appearance, beauty) affect consumer attitudes toward AR smart glasses?

Does consumer attitude affect intention to buy AR smart glasses?

Research on AR smart glasses adoption has largely relied on the Technology Acceptance Model (TAM)(Venkatesh & Davis, 2000) and its extensions, emphasizing perceived usefulness and ease of use (Al Faisal et al., 2022; Holdack et al., 2022).

# Innovation Ecosystem of Entrepreneurial Hospital

Harry Jeong<sup>1</sup>, Changhyeon Song<sup>2</sup>, Kwangsoo Shin<sup>3,\*</sup>

<sup>1</sup> *Research Professor(Ph.D), Graduate School of Public Health and Healthcare Management , the Catholic University of Korea, the Republic of Korea;*

<sup>2</sup> *Research Fellow(Ph.D), Office of S&T Policy Planning, Korea Institute of Science & Technology Evaluation and Planning, the Republic of Korea;*

<sup>3,\*</sup> *Assistant Professor(Ph.D), Graduate School of Public Health and Healthcare Management, the Catholic University of Korea, the Republic of Korea;*

## Abstract

This study empirically investigates the dynamic evolution of the innovation ecosystem of entrepreneurial hospitals through a comprehensive longitudinal analysis of academic research, patent activity, and clinical trials in the field of diabetes in Korea from 1995 to 2024. Unlike previous studies that mainly focus on university- or corporate-centered innovation ecosystems, this study systematically traces the evolutionary trajectory of entrepreneurial hospitals through network analysis of co-authorship patterns, researcher-sponsor networks based on registered patents, and clinical trial partnerships. The results show that over the past three decades, the diabetes research ecosystem in Korea has evolved from a dependent, simple, and decentralized structure to an independent, complex, and integrated network. Major domestic medical institutions, including Seoul National University Hospital, Seoul Asan Medical Center, Samsung Medical Center, and Severance Hospital, have emerged as central hubs in this transformation process. This study shows how hospitals' unique assets, such as living lab functions and access to clinical data, serve as catalysts for industry-academia-research collaboration, ultimately facilitating the transformation into entrepreneurial hospitals. This study provides empirical evidence that ecosystem maturation follows a gradual and cumulative process that requires sustained investment and relationship building rather than short-term interventions. For policymakers, we suggest establishing hospital innovation commercialization centers, deregulating the entrepreneurial activities of medical professionals, and establishing a governance framework for the use of medical data. For hospital administrators, we emphasize implementing a stepwise innovation strategy that evolves from clinical trial partnerships to comprehensive open innovation platforms.

## The co-creation of sustainability transition in airmobility

**Giovanna Del Gaudio**

*Assistant Professor, University of Naples Federico II, Italy*

**Valentina Della Corte**

**Full Professor, University of Naples Federico II, Italy**

**Vincenzo Carraturo**

*Ph.D. candidate, University of Naples Federico II, Italy*

### Abstract

The purpose of this study is to explore the co-creation of sustainability transitions in the air mobility sector, focusing on how stakeholders collaboratively design solutions coherent with the objective of reducing environmental impact, while maintaining accessibility and efficiency. The research investigates the central question:

*How can co-creation processes between industry, policymakers, and communities drive the sustainability transition in airmobility?*

This includes examining key drivers, barriers and best practices for fostering innovation and stakeholder collaboration in this field.

The growing environmental concerns associated with air travel have prompted research into strategies to influence passenger behavior toward sustainability. Eco-labels have emerged as a tool to enhance environmental transparency and encourage more eco-friendly decision-making. Baumeister, Zeng, and Hoffendahl (2022) investigated the impact of eco-labels on booking decisions in the aviation sector. Their study highlighted that eco-labels effectively inform passengers about the environmental performance of flights, leading to a measurable shift toward choosing more sustainable options. Importantly, the authors identified that the effectiveness of eco-labels depends significantly on their design and the visibility of the provided information. The study contributes to understanding how communication strategies in the aviation sector can align with broader environmental goals, bridging a critical gap between awareness and action in consumer behavior. The concept of voluntary carbon offsets has also been explored as a means to involve passengers directly in mitigating the environmental impact of air travel. Gössling et al. (2009) examined the behaviors of Swedish air travelers and their attitudes toward carbon offset programs.

# Transformation of the Engineering Study Process: Perspectives of Academic Staff and Students

**Silvija Mezinska (Corr.)**

*Rezekne Academy of Technologies, Latvia*

**Anda Abolina**

*Rezekne Academy of Technologies, Latvia*

**Velta Lubkina**

*Rezekne Academy of Technologies, Latvia*

**Ilze Baltina**

*Rīga Technical University, Latvia*

## Abstract

The aim of the study is to analyse how university students and academic staff understand and evaluate the transformation of the engineering study process, considering the impact of the transformation conditions and effective learning experiences. To achieve the study goal, the following research questions are posed: 1) What conditions facilitate the transformation of the study process in engineering? 2) How do university students and academic staff perceive the impact of study process transformation on learning outcomes and competence development?

Open innovation and educational innovation are closely related concepts that foster knowledge exchange and collaboration between academia, industry and other stakeholders. Open innovation improves the quality of teaching and learning, supports entrepreneurial skills and meets the Sustainable Development Goals by promoting collaboration between universities and industries (Valencia-Arias et al., 2023; De Las Heras-Rosas & Herrera, 2021). In higher education, open innovation encompasses not only the openness of technological solutions and data, but also the integration of new teaching approaches and methodologies that facilitate effective knowledge creation and transfer (Valencia-Arias et al., 2023). Educational innovations driven by open innovation encompass new pedagogical strategies, the integration of digital technologies, and structural changes in the study process. For example, the integration of Education 4.0 and open innovation has resulted in programs that promote technology-based solutions and student entrepreneurship skills (Miranda et al., 2020). Innovation serves as the driving force behind transformation, shaping both the actors involved in the change process and the broader environment in which it takes place (Tsujimoto et al., 2018). In innovation and design research, the focus is on the creation of new meaning, [...] the act of meaning-making (Verganti et al., 2020).

# Policy Development Innovation with Gamification in Society 5.0

**Arturs Bernovskis (Corr.)**

*Researcher at Riga Technical University, Latvia*

**Deniss Sceulovs**

*Professor at Riga Technical University, Latvia*

## Abstract

This paper examines the innovative application of gamification techniques within the policy development framework in the context of Society 5.0. Society 5.0 is a vision for a human-centered, technology-driven society that aims to balance societal and individual interests (Matsuoka & Hirai, 2020; Holroyd, 2020). It builds on Industry 4.0, emphasizing humanism in addressing social issues through cyber-physical integration (Serpa & Ferreira, 2018). The concept involves innovative governance approaches, including gamification and crowdsourcing, to enhance public engagement in policy-making (Tocchetti & Brambilla, 2020). The core thesis explores how gamification, incorporating game design elements in non-game contexts, can significantly enhance policy formulation and civic engagement. The methodology adopted involves a qualitative analysis of existing literature combined with theoretical modeling to ascertain the impacts of gamification on policy engagement and effectiveness. The study explicitly investigates the dual roles of gamification: first, as a tool to increase public engagement in the policy-making process, and second, to improve the efficiency and effectiveness of policy implementation in the digital era characterized by Society 5.0. The paper identifies key elements facilitating increased public interaction and policy co-creation through a detailed review of case studies and gamification frameworks. It highlights how gamification can bridge the gap between citizens and policymakers, thus fostering a more collaborative and transparent approach to governance. The research underscores the potential of gamification to transform policy development into a more dynamic, inclusive, and interactive process. Moreover, the paper discusses the implications of gamified policymaking in the context of Society 5.0's emphasis on technological integration in everyday life. It explores how these strategies can be aligned with intelligent technologies and big data analytics, enhancing decision-making processes and enabling more personalized and targeted policy outcomes.



# Dynamic Capabilities and Export Performance : A Pathway to Business Innovation

**Huan Meng**

*School of Business, Konkuk University*

*120 Neungdong-ro, Gwangjin-gu, Seoul, Republic of Korea, 05029*

**Junic Kim**

*School of Business, Konkuk University*

*120 Neungdong-ro, Gwangjin-gu, Seoul, Republic of Korea, 05029*

## **Abstract**

The rapidly evolving global market presents unprecedented challenges and opportunities for export enterprises striving to achieve and sustain competitive advantages. In this context, firms must effectively adapt to market turbulence, identify emerging opportunities, allocate resources efficiently, and engage in continuous innovation. Drawing on dynamic capabilities theory and resource-based theory, this study examines the interplay between dynamic capabilities, export performance, and innovation strategies, with a focus on their collective impact on sustainable competitiveness. Specifically, it investigates how key components of dynamic capabilities—operational agility and market agility—interact with export performance and influence innovation outcomes, including open innovation and business model innovation.

Dynamic capabilities represent a firm's ability to integrate, build, and reconfigure internal and external resources to respond to environmental changes. Operational agility refers to the ability to manage internal processes flexibly and efficiently, ensuring optimal resource allocation in response to changing market demands. This includes improvements in production processes, supply chain management, and logistics, which collectively enhance overall operational efficiency. Market agility, on the other hand, reflects a firm's ability to perceive and respond swiftly to shifts in market trends, customer preferences, and competitive conditions. Together, these components enable firms to adapt to the complexities of the global marketplace. While operational agility focuses on internal efficiency, market agility emphasises external responsiveness, making both capabilities critical for sustaining competitiveness in dynamic environments.

# A study of gender differences in AI adoption among Indian Engineering students: Implications for actionable initiatives at institutes

**Geethalakshmi P M (Corresponding & Presenting Author)**

*Assistant Professor, Department of Humanities & Management, Manipal Institute of Technology Manipal,  
Manipal Academy of Higher Education, Karnataka, India*

## **Abstract:**

While AI is occupying space in organizational activities, the adoption rate has not been same across different sections of the society. This may be due to various factors like lack of knowledge, non-acceptance, ethical concerns, lack of resources etc. The intrusion of AI has been non-linear, and rapid and hence it is imperative to understand how students look at the nature of their career and their readiness to work alongside AI. In addition, at a time when globally several affirmative actions are initiated to promote women entry into engineering field, it is important to understand whether integration of AI in organizations will act as catalyst or distance women from entering engineering field. Hence this study explores the perception of Indian young men and women who are studying engineering. This study uses in-depth interviews to understand how they see themselves in a world where AI integration is inevitable.

The study focusses on unravelling the dynamics of embracing AI from future engineers. The aim is to understand their perspectives, readiness, fears and apprehensions regarding AI in their future professions. This we hope can shed light for engineering colleges in taking actionable initiatives to make them future ready.

Furthermore, the study hopes to find traces of gender differences in the responses. The institutes can use this study to design targeted interventions to mitigate the challenges, if any.

The Technology Acceptance Model (TAM), proposed by Davis (1989) lays the foundation for the study by offering two factors to look at – Perceived usefulness and Perceived Ease of Use. These factors have been used to see whether there are gender differences in adopting AI by various scholars. Møgelvang et al., (2024) studied among the students of higher education in Norwegian university college. The work found that men show greater interest in using AI chatbots while women do not do so because of the concerns in curbing independent thinking. AI tools were found more useful by men in their future career.

# Innovating Smart City Solutions through Gamification in Society 5.0

**Arturs Bernovskis (Corr.)**

*Researcher, Riga Technical University, Latvia*

**Deniss Sceulovs**

*Professor, Riga Technical University, Latvia*

## Abstract

The paper's main objective is to explore how play elements, such as scoring systems, levels, achievements, etc., can benefit the promotion of cultural heritage in creative cities. How gamification can contribute to preserving cultural heritage and building a bridge between tradition and modern technology, making cultural heritage and the urban environment more accessible to a broader audience. What creative cities that widely use cultural heritage as a basis for development, applying innovative solutions, including gamification, develop cultural diversity and become more competitive globally and visible on the world map?

Using Gamification to Promote Cultural Heritage in Creative Cities offers a new, innovative approach to integrating gamification principles into studying the physical environment. Gamification can significantly increase the public's engagement, especially young people, by drawing attention to and stimulating interest in cultural heritage in new and interactive ways. Gamification elements can make the educational process more engaging and improve students' ability to learn about cultural heritage. Creative cities that use cultural heritage to develop can promote innovation and cultural diversity through gamification. Furthermore, games can bridge traditional cultural heritage and modern technologies, making them more accessible and engaging for a wider audience, especially young people (Arroyo et al., 2018). Games can also 'relive' historical events, people, and traditions, making them more exciting and understandable while effectively contributing to preserving and promoting cultural heritage. Technological developments constantly change the public's experience, so it is essential to understand how these modern technologies can impact cultural heritage.

Gamification, described by German professor and game designer Sebastian Deterding, integrates game elements and design principles in non-game contexts to increase engagement and motivation (Deterding et al., 2011).

# Exploring Intellectual Structure, Network and Research Themes in Open Innovation

**Ansun Park, Minzy Moon**

*Office of Strategic R&D Planning, Electronics and Telecommunications Research Institute*

## **Abstract**

Although a few studies conducted bibliometric analysis on this subject, no or little study has explored and compared research collaboration and bibliometric/network indicators by leading actor or identified the sub-topics by open innovation. To fill this gap, we identify intellectual structure and network of research production, influence, and cooperation, and the core research themes, using bibliometric and network analysis with journal articles from SCOPUS. We suggest discussions and implications for research activation of open innovation.

# LNG Supply Chain Optimization: A Case Study of Petrovietnam Gas Joint Stock Corporation in Vietnam Utilizing Trains For LNG Transport

**Linh My Bui**

*Ph.D. Candidate, Center for Public Administration, International University, Vietnam National University, Ho Chi Minh City, Vietnam*

**Phuong Van Nguyen**

*Associate Professor, Ph.D., Center for Public Administration, International University, Vietnam National University, Ho Chi Minh City, Vietnam*

**Ulrich Elmer Hansen**

*Senior Researcher, Ph.D., Department for Wind Energy, Technical University of Denmark*

## Abstract

LNG (liquefied natural gas) is a clean and efficient energy source that is becoming increasingly important in the context of global energy transition and increasing energy demand. LNG is not only an important energy source globally but also plays a strategic role in economic, environmental, and sustainable energy development in Vietnam. Sustainable development in the energy industry today requires efficient transportation solutions, reduced emissions, and supply chain optimization. Exploiting and optimizing the LNG supply chain is an important step to ensure efficiency and sustainability for the future. In the context of Vietnam's railway system continuing to develop, especially connecting industrial zones and seaports, using trains to transport LNG is a breakthrough innovation for the clean energy industry in Vietnam. Despite numerous global studies on LNG and various fuel transportation methods, the feasibility, economic efficiency, and sustainability of train-based LNG transport within Vietnam remain unexplored. Given the identified research gap and the importance of optimizing the LNG supply chain, it is necessary to conduct research on PetroVietnam Gas Joint Stock Corporation's successful implementation of rail-based LNG supply chain optimization. By conducting this research, the impact of using trains to transport LNG in the case of PetroVietnam Gas Joint Stock Corporation is evaluated in both environmentally and economically.

# How do CEO Characteristics Impact Corporate Participation in Triple Income Distribution under the Background of Common Prosperity? ——Machine learning based Approach

Runhui Lin, Zhimin Zhang, Liang Qu

*Nankai University, China*

## Abstract:

Against the backdrop of modernization for common prosperity, enterprises face the developmental tension of interwoven economic and social performance, with CEOs, as core decision-makers, playing a pivotal role. This paper conducts a comprehensive comparative analysis of CEO characteristics across three dimensions: demographic traits, identity attributes, and capability features, within the framework of the triple income distribution system. Horizontal comparisons adapt to the collaborative requirements of the triple distribution, while vertical comparisons facilitate precise management of CEO characteristics. To enable comparative analysis of high-dimensional features, this study introduces machine learning methods for complex problem-solving, using A-share listed companies from 2010 to 2021 as a sample for empirical analysis. The findings reveal: (1) CEO characteristics exert a relatively greater impact on the third income distribution, followed by the first, with a smaller influence on the second. (2) Across the three distribution forms, CEO demographic traits (age) and identity attributes (shareholdings) consistently hold high importance; conversely, CEO personal capabilities (e.g., financial competence, professional expertise in finance and law) dominate in the first and second distributions, while social connections matter more in the third. (3) The specific impact patterns of key CEO characteristics on the triple distribution exhibit nonlinear complexity, corroborating prior research while unveiling a more precise correlation map. The theoretical contributions include complementing micro-level research on triple distribution from a role theory perspective, providing new theoretical reflections and extensions to the classic Upper Echelons Theory, and enriching the application of machine learning in corporate governance.

Keywords: Triple income distribution; CEO characteristics; Corporate governance; Machine learning

# AI-Driven Outpatient Management Using Smart KIOSK Systems, AR-IoT Vital Monitoring, Predictive Diagnosis, and Resource Optimization

**Vineetha Edwina Jathanna (Corr.).**

*Assistant Professor, Department of Humanities and Management, Manipal Institute of Technology,  
Manipal Academy of Higher Education, Manipal, India*

**Vimuktha E Salis**

*Professor, Department of Information Science, Global Academy of Technology, Bangalore, India*

**Dr. Kevin Manohar Salis**

*Associate Professor, Department of Pharmacology, Vydehi Medical College and Research Center,  
Bangalore, India*

**Pathanjali C**

*Assistant Professor, Department of Information Science, Global Academy of Technology,  
Bangalore, India*

## Abstract

In the hospital sector, a strong business model should give patient-centred care the top priority along with operational effectiveness and innovation. Healthcare sector is witnessing a tremendous transformation with the combined implications of Artificial intelligence (AI) and augmented reality (AR). This paper focuses on developing a comprehensive healthcare system that integrates AI-powered diagnostic dashboards, AR-assisted physician consultations, faster scheduling for laboratory service and effective insurance processing. By integrating these components, the proposed work demonstrates an improvement in patient access to services, reduced assessment times, improved diagnosis accuracy and advanced administrative procedures, to produce a more effective and patient-centred healthcare experience. The paper also implements data analysis and evaluation on different parameters. The proposed system aims at reducing time spent on manual processes by 60%.

## Keywords

Outpatient Automation, AI-powered KIOSK, AR-IoT Monitoring, Predictive Diagnostics, Dynamic Slot Scheduling, Healthcare Workflow Optimization

# The Effect of Scientific and Technology Personnel's Self-Efficacy on Innovation Behavior Mediated by Learning Agility

**Yongsu Jeong**

*Science and Technology Policy, Gyeongsang National University*

**Hyewon Hwang**

*Management of Technology Ph.D. Candidate, Gyeongsang National University*

**Jeonghwan Jeon(Corr.)**

*Science and Technology Policy Prof., Gyeongsang National University*

## Abstract

In today's world, the importance of science and technology is increasing due to the accelerating global competition for technological hegemony (Kim & Kang, 2024). Science and technology serve as crucial driving forces for national development and are directly linked to national competitiveness (Lee, 2023). The government has been promoting science and technology innovation strategies through policies such as the 「Special Act on Supporting Science and Engineering Fields」, the 「4th Basic Plan for Fostering and Supporting Science and Technology Talent (2021–2025)」, and the 「National R&D Innovation Act (2022)」.

For these governmental efforts to lead to actual science and technology innovation, not only institutional and organizational efforts but also the innovative thinking and behavior of scientific and technological personnel are essential (Kim, Kim, & Park, 2022). The innovation behavior of organizational members is a key antecedent to organizational innovation success (Kim, Kim, & Lee, 2004) since all innovations are ultimately realized by individuals within the organization (Kim et al., 2024; Park & Park, 2025). In other words, the innovation behavior of scientific and technological personnel contributes not only to organizational and national achievements in science and technology but also technological innovation.

Therefore, it is necessary to explore the factors influencing the innovation behavior of scientific and technological personnel.

Self-Efficacy: Self-efficacy refers to an individual's belief or expectation that they can successfully perform a specific task or job (Bandura, 1977).



# Converging Robotics and Design: Leveraging Open Innovation for Enhanced Human-Machine Collaboration

Name, Heongu Lee, Jun jin-woo

*Office of Strategic R&D Planning, Korea Institute for Robot Industry Advancement*

## Abstract

Purpose/ Research Question: This research explores how the integration of robotics and design through open innovation can enhance the quality and effectiveness of human-machine collaboration. The primary research question is: What are the key mechanisms by which robotics and design converge through open innovation, and how do these mechanisms influence human-machine collaboration outcomes? The study aims to contribute to the emerging discourse on interdisciplinary approaches to robotics.

The integration of robotics and design within the framework of open innovation demands a comprehensive approach that incorporates diverse knowledge systems, human-centered principles, and robust ethical considerations. This interdisciplinary convergence is essential for addressing the complexities of human-machine collaboration in a rapidly evolving technological landscape. Chesbrough (2006) and Boudreau & Lakhani (2013) underscore the transformative potential of collaborative and open ecosystems in driving innovation. By fostering environments where internal and external ideas can converge, these approaches enhance the capacity of organizations to address challenges and create value through shared insights, partnerships, and collective problem-solving. Building on this foundation, Nonaka & Takeuchi (1995) present a dynamic knowledge framework that highlights the interplay between tacit and explicit knowledge as a critical driver of innovation. Their SECI model demonstrates how iterative knowledge processes enable organizations to navigate uncertainties and foster creativity, particularly in fields requiring cross-disciplinary collaboration like robotics and design. Norman (2013) complements this perspective by emphasizing the centrality of human-centered design principles, such as usability, simplicity, and iterative feedback, which are critical in ensuring that technological systems are intuitive, functional, and aligned with user needs. This focus on user experience is especially relevant in robotics, where the interaction between humans and machines must be seamless and adaptive. Lastly, Asaro (2006) brings an ethical dimension to the discussion, emphasizing the importance of aligning human-machine collaboration with societal values and norms.

# How Do Customer-Robot Interactions Shape Employees' Emotional Labor? Evidence from the Hospitality Industry in China

**Sang-Joon Kim, Ph.D.,**

*Associate Professor, School of Business,*

*Ewha Women's University, Seoul, Republic of Korea.*

**Inhyouk Koo\*, Ph.D., (Corr.)**

*Assistant Professor, School of Global Service (Entrepreneurship),*

*Sookmyung Women's University, Seoul, Republic of Korea.*

**Zhang, Yuanqi, Independent researcher,**

*Ewha Women's University, Seoul, Republic of Korea.*

## Abstract

This study examines the direct impact of service robots on hotel employees' emotional labor, specifically focusing on surface acting and deep acting. While existing research emphasizes the positive impacts of robot adoption on operational efficiency and customer satisfaction, relatively little attention has been given to how robots directly affect the emotional demands placed on employees. Drawing upon Emotional Labor Theory and the Technology Acceptance Model (TAM), this research addresses this gap by exploring how different types of robot-customer interactions—specifically in lobby, room, and food service contexts—as well as employee-customer interactions, influence employees' emotional labor strategies. The study aims to reveal the nuanced and context-specific emotional consequences of robot integration within frontline hotel services.

Using a quantitative approach, survey data were collected from 410 employees working in three- to five-star hotels in China. The survey was conducted online over one week in November 2023. Multiple regression analyses were employed to test the following hypotheses: (1) robot-customer interactions negatively influence employees' surface acting; (2) robot-customer interactions positively influence employees' deep acting; (3) employee-customer interactions negatively influence employees' surface acting; and (4) employee-customer interactions positively influence employees' deep acting.

# Carbon Footprint as a Welding Challenge and Innovation for Environmental Protection

**First Author Name: Bożena Szczucka-Lasota ✕**

*Position (Prof. of Silesian University of Technology), Affiliation (Silesian University of Technology, Poland)*

**Second Author Name : Tomasz Węgrzyn**

*Position (Full Prof.), Affiliation (Silesian University of Technology, Poland), Poland*

**Author Name: Abilio Silva**

*Position (Full Prof.), Affiliation (University da Beira Interior, Portugal)*

## Abstract

Welding is a highly energy-intensive and emission-intensive process, making it a significant contributor to the carbon footprint in the manufacturing and construction industries. Reducing the environmental impact of welding is crucial for achieving sustainability. This paper aims to address challenges and present innovative solutions to reduce raw material usage and carbon footprint in welding processes. The study explores the potential of innovative micro-jet cooling technology in welding Advanced High-Strength Steels (AHSS) to enhance joint strength and reduce material consumption, thereby contributing to sustainable development goals.

A comprehensive review of the literature highlights several key insights:

1. High-Strength Steels (e.g., DP, TRIP, MS, DOCOL) offer superior strength and formability but face challenges in maintaining joint strength during conventional welding processes.
2. Innovations in thermal management during welding, such as controlled cooling techniques, show promise in improving joint properties.
3. Reduction of CO<sub>2</sub> in shielding gas mixtures has dual benefits: improving joint quality and reducing environmental impact.

The innovative micro-jet cooling method proposed in this study offers a breakthrough by addressing these challenges, ensuring higher tensile strength and reduced carbon emissions during welding, thus aligning with sustainable development objectives.

The study implemented micro-jet cooling during the MAG welding of DOCOL 1200M steel, a high-strength steel used in automotive and construction applications. By systematically varying parameters such as gas mixture composition (Ar+CO<sub>2</sub> ratios) and micro-jet gas type (Ar, He), the research evaluated mechanical properties, fatigue strength, and metallurgical structure.

## Research on the relationship between species richness and abiotic environmental factors in wetlands

Sangdon Lee and Yein Lee

*Ewha Womans University, South Korea*

### Abstract:

This study investigated the environmental influences on species diversity, focusing on plant and bird taxa in inland wetlands in South Korea. Since the establishment of the Global Biodiversity Information Facility (GBIF), research on standardization and exchange protocols for biodiversity data has been actively conducted worldwide. However, efforts to construct integrated data for ecological management of inland wetlands in South Korea remains limited. Wetland management requires not only information on the occurrence of individual species but also the integrated management of environmental data that influence species biodiversity. To date, there are no established frameworks for the quantitative evaluation and comparison of species diversity in inland wetlands in South Korea based on environmental data. Therefore, this study identified the essential abiotic environmental factors influencing wetland species richness by analyzing the correlation between species richness and environmental data. This study analyzed 2,704 inland wetlands across South Korea.

Species information extracted from the 134 National Wetland Survey Reports and the Natural Environment Survey was used to calculate the species richness of plants and birds in each wetland. Additionally, correlations between the species richness of plant and bird taxa and various environmental variables such as hydrological, meteorological, water level, soil topography, and climate factors were analyzed using Generalized Linear Models (GLMs) and evaluated based on Akaike's information criterion (AIC).

The analysis revealed that species richness of plants and birds was positively associated with the number and area of vegetation communities, as well as the area of wetlands, while altitude had a negative effect.

**Acknowledgment:** This research was supported by the Korea Environmental Industry & Technology Institute (KEITI) funded by the Korea Ministry of Environment (MOE) (RS-2022-KE002025) and the National Research Foundation of Korea (NRF-2021R1A2C1011213).

# Integrating ESG into Organisational Strategies: The Role of Resilience and Adaptive Capabilities

**Whang, Jeong-Bin**

*Jeju National University, Republic of Korea*

**Jong-Ho Lee\***

*Korea University, Republic of Korea*

**Sungho Lee**

*University of Seoul, Republic of Korea*

## Abstract

How do resilience and adaptive capabilities moderate the relationship between environmental, social, and governance (ESG) activities and firm performance? Analysing survey data from 497 U.S. manufacturing firms, this study reveals that environmental and social activities positively influence firm performance, while governance activities exhibit a negative effect. Here, both resilience and adaptive capabilities strengthen the positive effects of environmental and social activities and mitigate the negative impact of governance activities. Resilience capability enables firms to maintain operational continuity during disruptions, whereas adaptive capability allows firms to strategically realign resources in response to external changes. The study advances the organisational innovation literature by empirically validating the contingent nature of ESG integration and demonstrating how specific dynamic capabilities facilitate sustainability-driven innovation. The results provide valuable insights into developing capability-centred approaches to ESG implementation, highlighting organisational readiness and internal capabilities as essential preconditions for translating sustainability commitments into competitive advantage.

*Keywords:* ESG activities, Resilience capability, Adaptive capability, Organisational Innovation, Firm performance

# AI Coding Assistants in Computer Science Education: Adoption, Self-Efficacy, and Academic Open Innovation Practices

**Asish Oommen Mathew (Corresponding & Presenting Author)**

*Associate Professor, Department of Humanities & Management, Manipal Institute of Technology Manipal,  
Manipal Academy of Higher Education, Karnataka, India*

**Aditi Rishiraj**

*Student, Department of Information & Communications Technology, Manipal Institute of Technology Manipal,  
Manipal Academy of Higher Education, Karnataka, India*

## Abstract

The rapid advancement of artificial intelligence (AI) technologies has transformed many domains, including software programming and engineering education. In recent years, Artificial intelligence coding assistants (AI-CA)—such as GitHub Copilot X, AmazonCodeWhisperer, ChatGPT etc —have improved coding efficiency(Waseem et al., 2024). The growing use of AI-CA in the computer science stream of engineering has raised important questions about how these tools shape students' confidence and willingness to collaborate. While global studies highlight the role of AI in enhancing programming efficiency (Gumina et al., 2023; Martinović & Rozić, 2025), there is limited understanding of how Indian students perceive these tools and whether their adoption fosters academic open innovation practices. Academic open innovation in the context of this research is defined as the intentional and systematic exchange of knowledge and ideas of engineering students with external entities.

This study focuses on three key questions:

1. How do students' perceptions of ease of use and usefulness influence their adoption of AI coding assistants?
2. Does increased self-efficacy from using AI tools encourage students to share knowledge and work collaboratively?
3. How do peer and instructor attitudes shape students' decisions to adopt AI coding assistants?

By addressing these questions, the study aims to provide actionable insights for Indian educators and policymakers to integrate AI tools effectively into curricula while fostering a collaborative learning culture.

# A Comparative Study on Entrepreneurial Perception between Korea and Nepal Using the Korea Entrepreneurship Index (KEI)

**Myoungkwan Lee**

*Senior Researcher, Beautiful Village Research Institute, Gyeongsang National University, South Korea*

**Daeyul Jeong**

*Professor, Department of Management Information Systems, Gyeongsang National University, South Korea*

**Sanghyeok Park(Corr.).**

*Professor, Graduate School of Entrepreneurship, Gyeongsang National University, South Korea*

## **Abstract**

This study aims to understand both the cultural diversity and theoretical universality embedded in entrepreneurial mindsets among adults in two countries with different economic, social, and cultural backgrounds—South Korea and Nepal—by comparing the key components of entrepreneurship. For this purpose, the Korea Entrepreneurship Index (KEI) was employed as a measurement tool. Unlike existing Western-centric indices such as GEM and GEI, the KEI is composed of five core dimensions that focus on the internal factors of adults: values, competencies, aspirations, perceived environment, entrepreneurial attitude, and entrepreneurial intention. It is characterized by its emphasis on psychological and cultural aspects.

A KEI-based survey was administered to adult respondents in both Korea and Nepal, and statistical analyses were conducted to compare the mean scores and their significance across components. The results revealed that Nepalese respondents scored significantly higher than their Korean counterparts in most internal dimensions, including humanistic values, sense of social responsibility, creativity and innovation capability, achievement motivation, and entrepreneurial intention. Conversely, Korean respondents exhibited higher tendencies toward fear of failure and avoidance of frustration. These findings suggest that institutional infrastructure and development level alone do not fully explain entrepreneurial tendencies. Rather, cultural context, psychosocial resources, and community-based value systems exert substantial influence.

This study emphasizes the need for a multidimensional approach that considers individuals' internal motivations, value orientations, and entrepreneurial attitudes, rather than reducing cross-national differences to stages of economic development.

# CREATING INTEGRATED VALUE THROUGH THE CIRCULAR ECONOMY: IMPLICATIONS FOR BUSINESS AND SOCIETY

**Saudi-Yulieth Enciso-Alfaro**

*Ph.D., Universidad de Salamanca,*

*Campus Miguel de Unamuno, edificio FES. Salamanca (Spain).*

**Isabel-María García-Sánchez(Corr.)**

*Full Professor/ Prof. Researcher, Universidad de Salamanca,*

*Campus Miguel de Unamuno, edificio FES. Salamanca (Spain).*

## ABSTRACT

Amid growing environmental pressures and the pressing demand for sustainable development, the Circular Economy (CE) has emerged as a transformative business model capable of safeguarding favourable ecosystem conditions through the application of key R-strategies. This research analyses the impact of corporative transition toward CE that respects planetary boundaries on the creation of tangible and intangible value for companies. To achieve our objectives and test our hypotheses, we employed an unbalanced panel dataset comprising 44,756 observations over the period 2013–2022, involving 7,010 multinational and multisectoral companies. Our empirical findings show the significant and positive impact of CE transitions on firms' market value and growth opportunities, as well as on the probability of obtaining an award, intangible recognition for the immeasurable value that CE has for humanity. These results are robust across various methodological specifications. Our findings provide valuable empirical evidence to understand the certain benefits of the transition to CE, especially in relation to the intangible recognition that it entails for companies to create value for society in accordance with the notion of safe operating space.

Keywords: Circular Economy; Planetary Boundaries; Tangible Value; Intangible Value; Performance.



# ESG Controversies and Sustainability Reporting: An Empirical Study of Listed Companies

## ESG controversies and reporting

**Albertina Paula Monteiro (Corr.).**

*Prof and researcher, CICEF, CEOS.PP, ISCAP, Polytechnic of Porto, Portugal, Portuguese*

**Catarina Cepeda**

*Prof and researcher, COMEGI; CEOS.PP, (ISCAP), Polytechnic of Porto, Portugal, Portuguese*

### Abstract

Analyzing the interaction between environmental, social and governance (ESG) controversies and sustainability reporting is essential to the corporate sustainability transparency. In this context, the aim of this study is to analyze the relationship between ESG controversies and sustainability reports. To achieve the proposed objective, this study analyses data from 6,409 European listed companies. The data, from 2009 to 2023, was obtained from the LSEG Refinitiv database and subjected to panel data regression analysis. Within stakeholders, legitimacy and institutional theories framework, the results indicate that companies with high ESG controversies tend to disclose in a sustainability report separately from the financial report. The results also show that ESG reporting external assurance is a variable that induces the effect of this relationship. This study is relevant to the advancement of literature by providing valuable insights into ESG controversies and its influence on sustainability disclosure. Furthermore, the results are useful for companies, governments and sustainability disclosure regulators.

Keywords: ESG controversies; Sustainability reports; Sustainability; Accountability; CSR; External Assurance

This work is financed by portuguese national funds through FCT - Fundação para a Ciência e Tecnologia, under the project UID/05422: Centre for organisational and Social Studies of Polytechnic of Porto.

## Beyond the boundary: How middle managers shape inter-organizational public R&D teams

Jooyeon Oh <sup>1</sup>, Eungdo Kim <sup>2,3</sup>, Dohyoung Kim <sup>4,\*</sup>

<sup>1</sup> *Institute Education Innovation, Hansung University, 116 Samseongyoro-16gil, Seongbuk-gu Seoul, South Korea*

<sup>2</sup> *Graduate School of Biomedical Convergence, College of Medicine, Chungbuk National University, 1 Chungdae-ro, Cheongju, South Korea*

<sup>3</sup> *Department of R&D Planning and Support, Biomedical Research Institute, Chungbuk National University Hospital, 776 1Sunhwan-ro, Seowon-gu, Cheongju, Chungbuk, 28644, South Korea*

<sup>4</sup> *Korea Institute of Energy Technology Evaluation and Planning, 114 gil-14 Teheran-ro, Seoul, South Korea*

### Abstract

This study examines how the structural configuration and cognitive composition of middle managers influence innovation performance in public research and development (R&D) consortia. It seeks to identify the conditions under which coordination efforts by middle managers facilitate or hinder collaboration outcomes in multi-organizational R&D environments. Combining boundary spanning theory with a mixed-methods design, the study analyzes 1,150 South Korean energy R&D projects through econometric modeling and validates findings with in-depth interviews from six middle managers. The analysis examines three dimensions: intensity of managerial presence, non-linear performance patterns, and the trade-off between specialty and diversity.

The results reveal a U-shaped relationship between middle manager intensity and publication quantity, with both low and high levels associated with superior outcomes compared to moderate configurations. In contrast, excessive managerial presence is linked to lower publication quality. Furthermore, teams composed of managers with shared domain expertise consistently demonstrate higher performance than those characterized by greater cognitive diversity.

This study reframes boundary spanning theory by introducing structural and compositional conditions that affect its efficacy in public-sector innovation networks. It advances theory by identifying intensity and composition as contingent variables and extends its applicability to policy-driven, multi-institutional R&D contexts. The findings provide design-relevant insights for optimizing managerial roles in complex collaborative projects.

# SUSTAINABLE TOURISM DEVELOPMENT: A CASE STUDY IN MUI NE FISHING VILLAGE, PHAN THIET CITY, VIETNAM

**Assoc. Prof. Dr. Ho Dinh Phi**

*University of Phan Thiet, Vietnamese*

**Linh Le Anh**

*University of Phan Thiet*

**Bich Dinh Nguyet**

*Binh Thuan Province Tourism Association*

**Khoa Nguyen Anh**

*Chairman of Binh Thuan Province Tourism Association*

**Dinh Thi Quynh Hoa**

*Graduated Bachelor, School of Business, International University, Vietnam National University, Ho Chi Minh City, Vietnam*

## ABSTRACT

Tourism development has become a vital economic sector for many countries but often poses significant environmental challenges. Tourism in Mui Ne Fishing Village has not yet fully exploited its potential, while existing activities contribute to water pollution, resource depletion, and ecological degradation. To ensure a balance between robust tourism development and environmental sustainability to pursue sustainable tourism, the conceptual framework was built to identify various factors (e.g., infrastructure, tourism resources, human resources, harmonious benefits, tourism promotion) explaining tourism activities and sustainable tourism; subsequently, it investigated the triangular relationships among tourism activities, word-of-mouth (WOM) intention, and sustainable tourism. The mass survey was distributed to tourists at Mui Ne Fishing Village, Phan Thiet, Vietnam, and approached and collected data from 350 tourists (i.e., valid cases) in the local area. Partial least squares - structural equation modelling was used for inferential analysis and theoretical estimation. It reveals that infrastructure, tourism resources, human resources, and harmonious benefits are essential factors in generating tourism activities and promoting sustainable tourism. It demonstrates the triangular relationships among tourism activities, word-of-mouth (WOM) intention, and sustainable tourism, in which WOM serves as a complementary mediator intervening in the causal relationship between tourism activities and WOM intention.

# A Qualitative Study of Circular Business Models: Insights from Small and Medium-Sized Enterprises (SMEs)

**Sasichakorn Wongsachia**

*Lecturer, International College, Khon Kaen University, Thailand, Thai,*

**Chavis Ketkaew**

*Associate Professor, Ph.D., Center for Sustainable Innovation and Society, Khon Kaen University, Thailand, Thai,*

## **Abstract**

The study examines the key drivers and barriers influencing the adoption of circular business models (CBMs) in small and medium-sized enterprises (SMEs) within Thailand's food sector. The research objective is to explore the key factors shaping the adoption of CBMs in SMEs. It seeks to answer the following questions: (1) What are the primary drivers encouraging SMEs to adopt circular business models? and (2) What are the key barriers preventing SMEs from fully implementing circular business models?

The circular economy (CE) offers a transformational framework for addressing environmental challenges, emphasizing sustainability and resource efficiency. However, implementing CE principles in SMEs, particularly in developing economies like Thailand, poses unique barriers and opportunities. Institutional theory provides a lens for understanding how coercive, normative, and mimetic pressures shape organizational behavior and drive transitions toward circular business models (CBMs). Coercive pressures arising from regulatory mandates and government enforcement often compel firms to align with environmental laws to avoid penalties (Castro-Lopez et al., 2023). Normative pressures, driven by stakeholders such as customers, suppliers, and industry groups, encourage adherence to sustainability norms and practices that are perceived as legitimate within the market (Kauppi, 2013).

Mimetic pressures influence organizations to emulate the successful strategies of leading firms or those operating in more advanced markets. While some studies note the limited impact of mimetic pressures on CE adoption, others highlight their importance in shaping environmental practices. For instance, mimetic forces have encouraged enterprises in Spain and Brazil to adopt CE practices through the replication of global best practices (Guarnieri et al., 2023; Latif et al., 2020). These institutional pressures are critical enablers of change, fostering skills development and collaborative capacities essential for CBM adoption (Arranz et al., 2024).

# Fostering Open Innovation for Societal Safety through Exploiting Digital Transformation in Market Surveillance

**Svetlana Mjakuškina (Corr.).**

*PhD student; Faculty of Engineering Economics and Management, Riga Technical University,  
Kalnciema Str. 6, Riga, LV 1048, Latvia*

**Maija Kavosa**

*Researcher; Faculty of Engineering Economics and Management, Riga Technical University, Kalnciema Str. 6, Riga, LV 1048,  
Latvia*

**Inga Lapīņa**

*Professor; Faculty of Engineering Economics and Management, Riga Technical University, Kalnciema Str. 6, Riga, LV 1048,  
Latvia*

## **Abstract:**

Many countries have developed regulatory bodies and mechanism to monitor and supervise its different markets. The developed market surveillance systems place a significant role, not only to ensure safety and security in the different areas, but also to ensure fair competition on the market. While market surveillance systems exist in many parts of the world, its scope and effectiveness is different and depends on various factors - social, economic, legislative and technological. Many countries see digital transformation as one of the key elements necessary to achieve effective market surveillance - to minimize bureaucracy, improve productivity, increase efficiency and effectiveness of the system, support innovation and reach the sustainability in the area. The research aims to identify the influence of market surveillance digital transformation on innovations leading to enhanced societal safety. This research investigates the influence of digital transformation in market surveillance on fostering open innovation and enhancing societal safety.

**Research limitations/ Implications:** The research results provide an in-depth understanding of how the digitalization of the market surveillance influences open innovation by providing information of its elements from the stakeholder and scientific literature perspective. The research limitation is that the survey is conducted in the construction industry in Latvia (based on the digitalization performed in the country). Latvia is one of the few countries where administrative process of the construction is fully digitalized.

# Open Innovation and intellectual capital in the fashion and textile industry

**Valentina Della Corte\***

*Full Prof., University of Naples Federico II, Italy*

**Enrico Di Taranto**

*Researcher, University of Naples Federico II, Italy*

**Simone Luongo**

*PhD, University of Naples Federico II, Italy*

**Vincenzo Carraturo**

*Ph.D. candidate, University of Naples Federico II, Italy*

**Giovanna Del Gaudio**

*Assistant Professor, University of Naples Federico II, Italy*

## Abstract

The aim of this paper is to understand how Made in Italy firms (automotive, fashion, furniture) can implement innovative products, both remaining anchored to the past and opening-up their internal boundaries by entering into relationships with a *plethora* of external actors.

This allows firms to interiorize and reinterpret both past and new knowledge in a novel and creative way. In this direction, it becomes important also to concentrate the attention on the entrepreneur's ability to generate novel, useful ideas or problem solutions. This is what literature defines as entrepreneurial creativity. Specifically, creative entrepreneurship refers to an overall process of creation, both in front of opportunities and threats coming from outside and with reference to firm's resources, their combinations and changes. Successful ideas are often a balance between novelty and familiarity: the generation of a new idea may be determined by the way in which both existing and external flows of knowledge are accessed.

At the firm level, two ways to look at innovation can be distinguished. First, innovation can be studied as a process of development and change. In this direction, the innovative process is directly influenced by the way R&D is carried out, by the "technological" characteristics of the innovations, by the level of tacitness of knowledge, by the capacity to accumulate know-how within the organisation and by the degree of appropriability of innovation from external sources.

# How does financial risk attitude influence small and medium enterprises' digitalization and sustainability investment decisions?

**Laura Trueba-Castañeda (Corr.)**

*Researcher, Santander Financial Institute (SANFI), Universidad de Cantabria, Santander, Spain*

**Francisco M. Somohano-Rodríguez**

*Ph.D., Santander Financial Institute (SANFI), Universidad de Cantabria, Santander, Spain*

**Begoña Torre-Olmo**

*Ph.D., Santander Financial Institute (SANFI), Universidad de Cantabria, Santander, Spain*

## Abstract

This research investigates how attitudes toward financial risk influence access to finance and investment decisions in digitalization and sustainability in SMEs. Key questions addressed include: Does financial risk attitude influence digitalization? Can a positive financial risk attitude enhance access to finance? Is there a correlation between financial risk attitude and sustainability practices? How does access to finance impact digitalization and SME performance?

Barney, J. (1991). Special theory forum the resource-based model of the firm: origins, implications, and prospects. *Journal of management*, 17(1), 97-98.

Kahneman, D., & Tversky, A. (1979). Prospect Theory: An Analysis of Decision under Risk. *Econometrica*, 47(2), 263–291.

Müller, J. M., Kiel, D., & Voigt, K. I. (2018). What drives the implementation of Industry 4.0? The role of opportunities and challenges in the context of sustainability. *Sustainability*, 10(1), 247.

Rauch, A., & Frese, M. (2000). Psychological approaches to entrepreneurial success: A general model and an overview of findings. *International review of industrial and organizational psychology*, 15, 101-142.

Willebrands, D., Lammers, J., & Hartog, J. (2012). A successful businessman is not a gambler. Risk attitude and business performance among small enterprises in Nigeria. *Journal of Economic Psychology*, 33(2), 342-354.

The overall sample design adheres to the principles of stratified sampling as proposed by Neyman (1934). To implement this approach, distinct stratification criteria were identified.

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

# SOI 2025 10th Anniversary Conference

July 15(Tue.)~18(Fri.), 2025, Main Conference Days

Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-  
myeon, Dalseong-gun, Daegu, 42988, Korea

July 17 (Thursday)



## **SOI 2025 10th Anniversary Conference**

**July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea**

***July 17 (Thursday)***

---

**Venue: Room 202, Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea, 09:00~10:30**

**Advancing ESG Innovation and Sustainable Practices in SMEs: Insights on Leadership, Culture, and Strategic Collaboration**

**Offline Chair: Kwangho Jung (Seoul National University, Korea)**

**Online Chair: Yuri Sadoi(Meijo University, Japan)**

- Paper 1: "CEO Perspectives on ESG in Korean SMEs: A Q-Methodology Approach" by **Gi Ran Kim & Kwangho Jung**
- Paper 2: "Exploring the Non-Linear Relationship Between Open Innovation and ESG-Focused Resilience in Complex Innovation Ecosystems" by **Pannyabhas Punnyadhanasakul & Phaninee Naruetharadhol\***
- Paper 3: "Circular Economy and Innovative ESG in Global Fashion Industry" by **Seung-Hee Lee & Kwangho Jung**
- Paper 4: "Comparative Study on Empty Houses Management Policies Based on MSSD - Focusing on the UK, France, Japan, and Korea" by **Cheol-ho Choi\*, In-bang Song**
- Paper 5: "Human Resource Development in IT industry in Sri Lanka - Its challenge and practices-" by **Aruna Gamage, Arnanda Kumara, Yuri Sadoi\*, Toshiyuki Sadoi [Online]**

***July 17 (Thursday)***

---

**Venue: Room 203, Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea, 09:00~10:30**

**Future-Forward: Exploring the Intersection of Emotion, Technology, and Decision-Making in Contemporary Markets**

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

**Chairs: Inhyouk Koo(Sookmyung Women's University, Korea) & Antonio K.W.Lau(Kyung Hee University, Korea)**

- Paper 1: "Human vs. AI: Exploring the Impact of AI-Personalization on Destination Image, Competitiveness and Visitor's Intention in Regenerative Tourism" by **Shahid Nawaz, Umer Zaman, Inhyouk Koo\***
- Paper 2: "The Impact of Digital Transformation on Environmental and Product Innovation: The Moderating Roles of Innovation Types" by **Ngo Ngoc Dieu, Antonio K.W.Lau\***
- Paper 3: "Harnessing Wisdom of Crowds for Idea Selection Accuracy: Insights from Scoring and Ranking Rules" by **Shijith Kumar PM, Inhyouk Koo, Ronny Estrella**
- Paper 4: "From Environment to Impact: How AI Capacity Drives Organizational Creativity, Decision-Making, and Performance" by **Truc Thanh Phan, Phuong Van Nguyen\* [Online]**
- Paper 5: "Synergizing Corporate Foresight, Eco-Innovation, and Learning for Sustainable Infrastructure and Agile Green Supply Chains" by **Vu Van Nguyen, Phuong Van Nguyen\*, Nhi Tran Thao Dinh, Huan Tuong Vo [Online]**

### *July 17 (Thursday)*

---

**Venue: Room 204, Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea, 09:00~10:30**

### **Open Innovation Strategies for Building Local Startup Ecosystems and Regional Revitalization**

**Chairs: Sanghyeok Park (Gyeongsang National Univ., Korea) & Igors Kukjans(Riga Technical University, Latvia)**

- Paper 1: "Multidimensional Entrepreneur Typology Analysis of Legacy Company CEOs in Korea's Southeast Region Using BERTopic: An Integrated Personality-Context-Behavior Approach" by **Sehoon Park, Dongphil Chun(Corr.)\***

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

- Paper 2: "A Blockchain-Enabled Taxation Framework for Implementing the Polluter-pays Principle in Transportation" by **Igors Kukjans\***, **Inguna Jurgelane-Kaldava**, **Maris Juruss**
- Paper 3: "Triangular Relationship Among Employer Branding, Organizational Reputation, and Job Pursuit Intention: Focus on University Students and Multinational Corporations" by **Han Nu Ngoc Ton\***, **Luu Thi Minh Anh**, **Trang Minh Tran-Pham**, **Tran Vu**
- Paper 4: "Smart Firefighting Technology Patent-Based Analysis" by **KIM DAEHEON**, **Jeonghwan Jeon\***
- Paper 5: "Antecedents and consequences of outside-in marketing capabilities with the mediating role of marketing innovations and moderating role of ambidexterity" by **Choong Il Lim & Lee, Sungho**

### *July 17 (Thursday)*

---

**Venue: Room 301, Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea, 09:00~10:30**

### **Knowledge Management and Open Innovation in Biomedical Industry**

**Offline Chair: Eungdo Kim (Chungbuk National Univ., Korea)**

**Online Chair: John Benette John (Manipal Academy of Higher Education, India)**

- Paper 1: "Analyzing the Impact of Open Innovation Factors on the Performance of Firms in Korean Bio Clusters: A Study on Key Characteristics and Outcomes" by **Narae Lee**, **Eungdo Kim\***
- Paper 2: "Evolution of platform innovation ecosystems under the dynamic capability perspective: a case study based on the Haier" by **Xiaoran Li**, **Yuxuan Xie\***, **Weixin Zhu**
- Paper 3: "Classifying Open Innovation Networks: 3D Perspectives and Productivity Insights" by **Jaehoon Yang**, **Eungdo Kim\***, **Junseok Hwang**
- Paper 4: "Open Innovation in Educational Settings: A Systematic Literature Review and Bibliometric Analysis" by **John Benette John**, **Dr. Sumukh S. Hungund\***, **Dr. Deepika Shetty [Online]**
- Paper 5: "WHY THE POLICY COULD NOT ABSORBT BY SMES? – A VIEW THROUGH RECIPROCITY

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

'LENS' IN A CASE IN VIETNAM" by **Nguyen Manh Quan, Nguyen Manh Khang, Nguyen Le Thanh** [*Online*]

### ***July 17 (Thursday)***

**Venue: Room 202, Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea, 14:00~15:30**

#### **Eco-innovation and Sustainable Business**

**Chairs: Chavis Ketkaew(Khon Kaen Univ., Thailand), Phaninee Naruetharadhol(Khon Kaen Univ., Thailand) & Dongwoo Kim (Sungkyunkwan University, Korea)**

- Paper 1: "Complex Adaptive Systems and Circular Economy Business Model Resilience in Sustainable Innovation Ecosystems" by **Pannyabhas Punnyadhanasaku & Phaninee Naruetharadhol\***
- Paper 2: "Unlocking new growth opportunities for medical device startups after IPO" by **Dongwoo Kim, Kwangsoo Shin\***
- Paper 3: "Adoption Behavior of SMEs Entrepreneurs Towards Carbon Footprint Labels on Organic Food Products: A Business Model Innovation for Sustainability" by **Wongsatorn Worakittikul, Phaninee Naruetharadhol\***
- Paper 4: "Flexible Work Arrangements and Employee Engagement in E-commerce – a literature review" by **Elina Pentjusa, Evita Kalmane-Pivkina** [*Online*]
- Paper 5: "Assessment of the Impact of Social Media Marketing on Brand Engagement and Sales Performance of Online Service Companies in Sri Lanka" by **Stephan Harith Shamalka Wanasinghe, Ieva Andersone** [*Online*]

### ***July 17 (Thursday)***

---

**Venue: Room 203, Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea, 14:00~15:30**

### **Digital Innovation and Capabilities**

**Online Chair: Nguyen Van Phuong (Vietnam National Univ., Vietnam)**

**Offline Chair: Sangpil Yoon (Gyeongsang National Univ., Korea)**

- Paper 1: "Aligning Organizational Culture with ESG Goals in Korean Small and Medium Enterprises" by **Gi-Ran Kim & Kwangho Jung**
- Paper 2: "A Model for Promoting Local Entrepreneurship centered on Regional Universities" by **Sangpil Yoon**
- Paper 3: "Jade can be polished by stones from other hills?Promotion strategy selection for video platforms in the age of social media" by **Ruihui Lin, Xiaoyu Chen**
- Paper 4: "Enhancing Organizational Performance: The Role of Government Support, AI Capability, and Strategic Foresight" by **Linh Ho Ngoc Cao, Phuong Van Nguyen\*** [Online]
- Paper 5: "Enabling Business Model Innovation through Dynamic Capabilities: The Role of Corporate Foresight, Big Data, and Government Support in an Emerging Economy" by Vu Van **Nguyen, Phuong Van Nguyen\*, Nhi Ngoc Y Vo, Huan Tuong Vo** [Online]

### ***July 17 (Thursday)***

---

**Venue: Room 204, Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea, 14:00~15:30**

### **Innovation for Sustainable Development: Current Status, Challenges, Opportunities, and Future Directions**

**Chairs: Katarzyna Turoń(Silesian Univ. of Technology, Poland) & Dongphil Chun(Pukyong National Univ., Korea)**

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

- Paper 1: "Open Innovation in Micromobility – From Crowdsourcing to Co-Creating Sustainable Solutions" by **Katarzyna Turoń, Andrzej Kubik**
- Paper 2: "Corporate-Startup Collaboration Research Trends Analysis Using BERTopic: Identifying Research Topic Structure and Development Patterns through Time-Series Topic Modeling" by **Sehoon Park\*, Dongphil Chun**
- Paper 3: "GLASS CEILING, JOB STRAIN AND INTENTION TO QUIT AMONG FEMALE EMPLOYEES IN VIETNAM'S PUBLIC SECTOR" by **Han Nu Ngoc Ton, Tien Chau Thuy Huynh, Le Thi Ha Bao Khanh, Nhan Trong Nguyen, Thy Thi Bao Huynh**
- Paper 4: "Open Innovation for Green Transition in Energy Sector: A Literature Review" by **Izabela Jonek-Kowalska\*, Aneta Michalak [Online]**
- Paper 5: "Public Private Partnerships. Case of Baltics" by **Anita Titova, Natalja Lace [Online]**

### *July 17 (Thursday)*

---

**Venue: Room 301, Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea, 14:00~15:30**

### **What are Drivers of Innovation and Entrepreneurship?: Cases of South Korea and Other Countries & Open Innovation Network in the Digital World**

**Offline Chairs: Junghyun Yoon (Yeungnam Univ., Korea) & Sanghyun Sung(GyeongSang National Univ., Korea)**

**Online Chair: Ben Zhang (Huazhong Univ. of Science & Technology, China)**

- Paper 1: "Process Analysis of Startup Support Programs in Korea Using Process Mining: A Focus on Growth Stages of Startup" by **Sung, Sanghyun & Yoon, Junghyun**
- Paper 2: "On Classification of Factors for Analysis of Conflict Triggers and Prevention Mechanisms in Organizations" by **Jana Ozolina, Sanita Šaitere, Elina Gaile-Sarkane**
- Paper 3: "Drivers of Creative Deviance: From Perspective of Open Innovation and Entrepreneurship" by **Sanakulova, Rizakulovna Nodira & Yoon, Junghyun**

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

- Paper 4: "Exploring the growth of disruptive technology in the digital age from the perspective of patents: The evolution in the field of autonomous vehicle" by **Yakun Ji, Minghan Sun, Ben Zhang\***  
*[Online]*
- Paper 5: "Classification of Sustainable Innovation in Corporate Venturing" by **Diana Smite**  
*[Online]*



## CEO Perspectives on ESG in Korean SMEs: A Q-Methodology Approach

**Gi Ran Kim**

*(Carolina University)*

**Kwangho Jung**

*(Seoul National University)*

### **Abstract**

Existing research has primarily focused on surveying the general public or employees to understand the relationship between businesses and Environmental, Social, and Governance (ESG) practices, leaving a gap in exploring CEOs' perspectives. This study addresses this gap by examining the nuanced and in-depth perceptions of CEOs in Korean small and medium-sized enterprises (SMEs) through the Q-methodology approach. Unlike traditional surveys, Q-methodology captures the complexity of CEOs' priorities and strategic considerations regarding ESG integration. The research identifies distinct viewpoints, highlighting key drivers, challenges, and opportunities unique to the SME context. These findings provide a richer understanding of how SME leaders conceptualize ESG as a pathway to sustainability and competitiveness. The study offers valuable insights for policymakers and industry stakeholders to design tailored ESG strategies that align with the leadership dynamics and specific needs of Korean SMEs. Keywords: ESG, SMEs, CEO perspectives, Q-methodology, sustainability

# Exploring the Non-Linear Relationship Between Open Innovation and ESG-Focused Resilience in Complex Innovation Ecosystems

**Pannyabhas Punnyadhanasakul**

*Global business Lecturer, M.Sc. in International Technology and Innovation Management, Khon Kaen University  
International College, Thailand*

**Phaninee Naruetharadhol\***

*Associate Professor, Ph.D., Center for Sustainable Innovation and Society, Khon Kaen University, Thailand*

## Abstract

The purpose of this research is to explore the non-linear relationship between open innovation and environmental, social, and governance-focused resilience in complex innovation ecosystems. This study seeks to identify whether varying levels of open innovation influence resilience outcomes positively or negatively, providing insights into how organizations can optimize their innovation strategies to enhance adaptability and sustainability under environmental, social, and governance pressures. Understanding this relationship contributes to the growing literature on innovation and sustainability management, aligning with calls for deeper exploration into the dynamic interplay between innovation practices and organizational resilience (Bogers et al., 2018; Khan et al., 2024; Williams et al., 2017).

How does open innovation influence environmental, social, and governance-focused resilience within complex innovation ecosystems, and what is the nature of their non-linear relationship? This question addresses the need to uncover whether there are diminishing returns, thresholds, or inflection points where open innovation practices transition from being beneficial to potentially counterproductive in supporting resilience.

Open innovation has emerged as a critical strategy for enhancing organizational adaptability and resilience, particularly within complex innovation ecosystems. Chesbrough (2006) emphasizes that open innovation facilitates knowledge exchange and collaboration with external partners, allowing organizations to adapt more effectively to dynamic market conditions and environmental challenges. However, Ebersberger et al. (2021) caution that while openness can drive innovation performance, it is not without limits.

# Circular Economy and Innovative ESG in Global Fashion Industry

**Seung-Hee Lee**

*(Southern Illinois University)*

**Kwangho Jung**

*(Seoul National University)*

## **Abstract**

This study examines the integration of circular economy principles and innovative Environmental, Social, and Governance (ESG) practices in the global fashion industry, focusing on their potential to drive sustainability and competitiveness. Using a policy instruments framework, the research categorizes existing policy tools into three dimensions: market-based, regulatory, and informational. It further analyzes their effectiveness in promoting circular business models and ESG strategies within the fashion industry. Additionally, the study explores procedural policy instruments that facilitate collaborative ESG processes involving the fashion industry, civil society, and government. Key areas of investigation include the role of eco-design, sustainable supply chain management, and stakeholder collaboration in reducing environmental impact and enhancing social responsibility. By providing insights into successful case studies and collaborative policy mechanisms, the study offers actionable recommendations for governments, industry leaders, and stakeholders to foster a more sustainable and inclusive fashion ecosystem. Keywords: Circular Economy, ESG Practices, Global Fashion Industry, Policy Instruments, MarketBased Tools, Regulatory Tools, Informational Tools, Procedural Tools

# Comparative Study on Empty Houses Management Policies Based on MSSD - Focusing on the UK, France, Japan, and Korea

**Cheol-ho, Choi.**

*Senior Research Engineer, Beautiful Village Lab, Gyeongsang National University, South Korea.*

**In-bang, Song(Corr.).**

*Professor, Graduate School of Business & Entrepreneurship, Gyeongsang National University, South Korea.*

## Abstract

Rural areas and regional small and medium-sized cities in Korea are rapidly declining due to direct and indirect factors such as population decline due to declining birth rates, population outflow due to population concentration in large cities, increase in old housing, increase in the proportion of elderly people, decrease in jobs, and weakened industrial base. In particular, the social problems caused by the increase in empty houses are emerging as a problem that must be overcome as soon as possible. Accordingly, we will select empty houses management policies in the UK, France, and Japan, set comparative analysis criteria, and compare and analyze the case of Korea to provide implications for the direction of improvement of the current empty houses management policy.

The major previous studies are as follows. Ho-young Seok(2024) conducted a study on the current status of the legal system and improvement measures for utilizing empty houses in rural areas in Korea, and argued for the need to reorganize the legal system considering the regenerative value of empty houses. Myeong-won Kang(2024) derived implications for the national plan for resolving empty houses and the introduction of empty house taxes through a study on France's empty house management policy. Jin-kyung Park and Hyuk-sam Kwon(2020) analyzed that local governments are leading empty house management under the institutional and financial support of the central government in the UK through a case study on empty house management policy and various civic groups are participating to recycle empty houses in various ways such as supplying rental housing and utilizing workspaces. Ji-hyun Nam(2014) analyzed the causes of empty house formation in Japan as population decline and aging, economic recession and decrease in long-term residents, aging of buildings, and regional decline. When synthesizing previous studies, each country's empty house management policy has its own implications, but it has not been able to derive the characteristics of each country through direct comparison.

## Human Resource Development in IT industry in Sri Lanka - Its challenge and practices-

**Prof. Aruna Gamage,**

*Dept. of Human Resource Management, Faculty of Management Studies & Commerce,  
University of Sri Jayewardenepura*

**Prof. Arnanda Kumara**

*President, LNBTI, Sri Lanka*

**Yuri Sadoi (Corr.)**

*Professor Dr. Faculty of Economics, Meijo University, Japan*

**Toshiyuki Sadoi**

*Lecturer, LNBTI, Sri Lanka*

### Abstract

Sri Lanka, as a developing economy, has identified human resource development (HRD) in the field of information and communication technology (ICT) as a critical component for economic growth and technological advancement. The government has implemented numerous policies and initiatives aimed at fostering IT engineer education and addressing the growing demand for skilled professionals. Key efforts include the *e-Thaksalawa* platform and smart classroom projects, which aim to improve ICT literacy and provide equitable access to modern educational resources. Universities play a central role in this ecosystem, offering specialized programs in computer science, software engineering, and data science. These programs are designed to equip students with the theoretical and practical expertise required to succeed in the fast-evolving ICT industry.

A notable development in Sri Lanka's IT education landscape is the establishment of the Lanka Nippon BizTech Institute (LNBTI) in collaboration with Japanese private sector ICT companies. This institution bridges the gap between academia and industry by ensuring curriculum relevance, facilitating internships, and enabling joint projects. Such partnerships enhance the practical skillsets of students, aligning their education with industry demands and improving their employability in local and global markets.

Despite these advancements, significant challenges remain. Disparities in access to educational resources between urban and rural areas limit opportunities for many aspiring IT professionals.

# Human vs. AI: Exploring the Impact of AI-Personalization on Destination Image, Competitiveness and Visitor's Intention in Regenerative Tourism

**Shahid Nawaz, Ph.D.,**

*Assistant Professor, Department of Management Sciences,  
Islamia University Bahawalpur (IUB), Pakistan.*

**Umer Zaman, Ph.D.,**

*Associate Professor, Global Convergence Business,  
Endicott College of International Studies,  
Woosong University, Daejeon, Republic of Korea.*

**Inhyouk Koo\*, Ph.D., (Corr.).**

*Assistant Professor, Department of Global Service,  
Sookmyung Women's University, Seoul, Republic of Korea.*

## Abstract

The present study empirically examines the relationship of AI quality content with perceived utility and its impact on destination competitiveness. Moreover, the present study also specifically focuses on how visitor's intention acts as an intermediary and destination image as a moderator. The main research question guiding this investigation is: How do the quality of content and perceived usefulness of AI tools impact destination competitiveness, and what roles do destination image and visitor's intention play in this relationship? By answering this question, the present study significantly contributes to the limited knowledge of how emerging technologies shape the global tourism landscape.

Several key themes from the AI and tourism literature review are pertinent to this research. Studies have shown how AI tools, like ChatGPT, can improve the quality of content produced while making it more accessible; hence, they increasingly make academic workflows change towards increasing the quality of written materials and efficiency in the conduct of research (Ku & Chen, 2024; Suanpang & Pothipassa, 2024). Moreover, the adoption of AI in destination marketing is viewed positively, as 80% of marketers perceive AI to improve their work rather than threaten it, according to Ku and Chen (2024). This indicates that AI tools can improve the competitiveness of destinations through optimized marketing strategies.

# The Impact of Digital Transformation on Environmental and Product Innovation: The Moderating Roles of Innovation Types

**Ngo Ngoc Dieu**

*Student, Kyung Hee University, Korea*

**Antonio K.W.Lau (Corr.)**

*Professor, Kyung Hee University, Korea*

## **Abstract**

This study examines the relationship between digital transformation (DT) and innovation performance, distinguishing between product and environmental innovation. Using data from the 2022 Korean Innovation Survey (KIS), the study analyzes how DT adoption and intensity influence innovation outcomes and how different R&D collaboration types moderate these effects. Findings indicate that DT adoption enhances innovation progress but may not directly improve sales performance. Conversely, higher DT intensity positively affects product sales but negatively impacts certain innovation activities. While DT adoption supports internal environmental innovation, only DT intensity benefits both firms and end-users. Additionally, outsourcing and joint R&D enhance the impact of DT on new product sales, whereas independent R&D facilitates environmental innovation. These findings provide valuable insights for firms and policymakers seeking to optimize digital strategies.

Keywords: Digital transformation, product innovation, environmental innovation, innovation collaboration, Korea

# Harnessing Wisdom of Crowds for Idea Selection Accuracy: Insights from Scoring and Ranking Rules

**Shijith Kumar PM, Ph.D.,**

*Assistant Professor, SolBridge International School of Business,  
Woosong University, Daejeon, Republic of Korea.*

**Inhyouk Koo, Ph.D. (Corr.),**

*Assistant Professor, Department of Global Service,  
Sookmyung Women's University, Seoul, Republic of Korea.*

**Ronny Estrella, Ph.D.,**

*Assistant Professor, SolBridge International School of Business,  
Woosong University, Daejeon, Republic of Korea.*

## Abstract

Open innovation has gained prominence in both research and practice (Terwiesch and Ulrich 2009; Bockstedt et al, 2016). The use of open communities and crowds in innovation is common (for example, Dell, Threadless, IBM, Google, etc.) and have not only been limited to idea generation activities but have also extended to idea evaluation and selection. Managers find the use of innovation communities to evaluate and select top quality ideas to be more cost efficient (King & Lakhani, 2013). Different decision rules used in idea evaluation may impose different cognitive loads on the decision makers (Simon 1974, Hastie and Dawes 2001) and thereby effect the quality of idea selection (Cui, et al., 2019). Though collective wisdom is contingent on the judgments elicited using different decision rules such as ranked preferences, numerical ratings, etc. (Durbach & Montibeller, 2019), the performance of such decision rules in collective judgment problem areas is underexplored (King & Lakhani, 2013; Klein & Garcia, 2015; Cui, et al., 2024). This study aims to study two commonly used decision rules in idea evaluation (namely, scoring and ranking) and idea selection accuracy in a collective judgment context. We specifically investigate the following questions – when deployed in a crowd, which decision rule (scoring and ranking) is more accurate in selecting the top-quality ideas from a pool of ideas? And which rule is more efficient in achieving high accuracy?

Extant research on idea evaluation has mainly focused on achieving access to a larger pool of experts with relevant expertise (Kornish and Hutchison-Krupat, 2017), and few studies have investigated the efficacies of the different decision rules or processes being used to evaluate new ideas by online communities (Cui et al., 2019).



# From environment to impact: How AI capacity drives organizational creativity, decision-making, and performance

**First author: Truc Thanh Phan**

*Master Student, Center for Public Administration, Finance and Accounting, International University, Vietnam  
National University Ho Chi Minh City, Vietnam*

**Second and corresponding: Phuong Van Nguyen**

*Assoc. Prof., Center for Public Administration, International University, Vietnam National University, Ho Chi Minh City, Vietnam*

## Abstract

This study examines how environmental context and artificial intelligence (AI) capability shape organizational performance in public sector organizations. It addresses a significant gap in the literature by exploring the mediating roles of organizational creativity and AI management in the relationship between AI capability and performance.

Design/methodology/approach – Drawing on the resource-based view and prior AI capability research, this study develops an integrated model linking environmental context, AI capability, organizational creativity, AI management, AI-driven decision-making, and organizational performance. Data were collected through a survey of 225 management-level respondents from Vietnamese public organizations. Partial least squares structural equation modeling was used to analyze the data.

The results highlight the pivotal role of AI capability in driving organizational creativity, AI management, and ultimately organizational performance. Environmental factors significantly influence the development of AI capability. Organizational creativity and AI management partially mediate the relationship between AI capability and performance. However, the expected link between AI management and AI-driven decision-making was not supported, indicating challenges in fully leveraging AI systems in public sector decision-making processes.

This study extends the RBV framework by clarifying how AI capability operates as a dynamic resource within the public sector. It contributes new insights into the mediating mechanisms through which AI capability enhances performance and highlights the importance of complementary organizational processes in achieving digital transformation outcomes in public administration.

# Synergizing Corporate Foresight, Eco-Innovation, and Learning for Sustainable Infrastructure and Agile Green Supply Chains

**Vu Van Nguyen**

*Ph.D. Student, Center for Public Administration, International University, Vietnam National University, Ho Chi Minh City, Vietnam*

**Phuong Van Nguyen (corr)**

*Assoc. Prof., Center for Public Administration, International University, Vietnam National University, Ho Chi Minh City, Vietnam*

**Nhi Tran Thao Dinh**

*Research Assistant, Center for Public Administration, International University, Vietnam National University, Ho Chi Minh City, Vietnam*

**Huan Tuong Vo**

*Lecturer, School of Business, International University, Vietnam National University Ho Chi Minh City, Vietnam*

## **Abstract:**

The purpose of this study is to explore the relationships between Sustainable Infrastructure Development, Eco-Process Innovation, and Corporate Foresight, and how they influence Green Supply Chain Agility, Organization Learning Capacity, and Eco-Innovation Adoption. Ultimately, the study seeks to assess the impact of these variables on organizational members' Proficiency, Adaptivity, and Proactivity. The research aims to identify the mechanisms through which these factors interact to drive innovation, adaptability, and effectiveness in organizations.

Key Literature Reviews (About 3~5 papers):

The Dynamic Capabilities View (DCV), developed by (Teece, 2007; Teece & Pisano, 1994) was designed to address the limitations of the Resource-Based View (RBV), particularly in the context of highly volatile business environments. DCV focuses on an organization's ability to continuously reconfigure, integrate, and build internal capabilities to adapt to external changes. Teece et al. (1997) define dynamic capabilities as "the ability to integrate, build, and reconfigure internal competencies and resources to address rapidly changing market conditions. Dynamic capabilities encompass a firm's ability to equip itself for adapting to change, necessitating the acquisition, assimilation, and restructuring of capabilities (Gupta & Gupta, 2019; Liu et al., 2020; Teece & Pisano, 1994).

# Multidimensional Entrepreneur Typology Analysis of Legacy Company CEOs in Korea's Southeast Region Using BERTopic: An Integrated Personality-Context-Behavior Approach

**Sehoon Park**

*Senior Research Engineer, Beautiful Village Lab, Gyeongsang National University, Republic of Korea..*

**Dongphil Chun (Corr.).**

*Professor, Graduate School of Management of Technology, Pukyong National University, Republic of Korea.*

## Abstract

This study aims to develop and apply a multidimensional classification framework to understand the nuanced and complex entrepreneurial characteristics of legacy company CEOs in Korea's Southeast region. The specific research questions are: (1) How can a comprehensive multidimensional typology classification framework for CEO entrepreneurial characteristics be developed? (2) When this framework is applied, what typological characteristics and distributions do Southeast region legacy company CEOs exhibit, and how do these vary by region and industry? Key Literature Reviews: To overcome the limitations of existing entrepreneur typology research that remains fragmented or single-dimensional, this study builds a multidimensional analytical framework integrating major preceding theories on entrepreneurs' personal characteristics (e.g., Big Five personality traits), corporate and industrial contexts (e.g., craftsmen/administrative entrepreneurs), and actual behaviors (e.g., effectuation/causation logic).

BERTopic-based text mining methodology was employed. Data on 294 legacy company CEOs in the Southeast region (Busan, Ulsan, Gyeongnam) were generated through the Gemini 2.5 model. CEO entrepreneurial characteristics were categorized into three dimensions: personal characteristics, corporate/industrial context, and behavior. Analysis was conducted through guided topic modeling using seed topics based on major entrepreneurship theories.

The study identified major integrated entrepreneur types (e.g., "Artisanal Creative Enactor," "Autonomous Performance Manager," "Steady Craft Adapter") that showed distinct regional differences. Ulsan demonstrated stability-oriented characteristics, Busan showed balanced traits, and Gyeongnam exhibited management innovation-oriented characteristics. The derived entrepreneur types also showed associations with specific industrial sectors.

# A Blockchain-Enabled Taxation Framework for Implementing the Polluter-pays Principle in Transportation

**Igors Kukjans (Corr.)**

*Master, Riga Technical University, Latvia*

**Inguna Jurgelane-Kaldava**

*Assoc. Professor, Riga Technical University, Latvia*

**Maris Juruss**

*Assoc. Professor, Riga Technical University, Latvia*

## Abstract

The Polluter Pays Principle (PPP) is fundamental to modern environmental policy, declaring that those responsible for pollution should bear the costs of mitigating its effects. While the PPP is widely implemented in EU policies for industrial pollution and waste management, its application in transport remains inconsistent (Aydin & Esen, 2018). Transport taxation frameworks designed to reduce emissions vary significantly across Europe, with some countries adopting progressive measures, such as emissions-based vehicle taxes, while others lag in implementation. As identified in previous research (Kukjans, 2024), a key barrier to successful implementation is the lack of clear guidelines on transport emissions within supply chains. Many companies focus more on reporting than on actual pollution reduction, often disclosing only a fraction of their Scope 3 emissions and relying on inaccurate methods, such as industry averages or spend-based approaches, which results in significant underreporting. Given that Pope and Owen (2009) calculations suggest that the tradable carbon permits scheme could potentially account for as much as a quarter of the revenue generated by Value Added Tax, this indicates that relying solely on supply chains to improve their reporting is unrealistic, as it would likely require significant additional payments.

This paper hypothesizes that comprehensive sustainability reports, including detailed pollution levels and mitigation costs of involved transportation companies, will provide a strong signal for sustainable transport practices and significantly improve transport sustainability.

How can transport-related pollution be clearly identified within the supply chain?

How can transport pollution levels and the uncovered mitigation costs be effectively measured and allocated to specific segments of the supply chain?

Do the improvements identified in Questions 1 and 2 contribute to enhancing overall transport sustainability?

# TRIANGULAR RELATIONSHIP AMONG EMPLOYER BRANDING, ORGANIZATIONAL REPUTATION, AND JOB PURSUIT INTENTION: FOCUS ON UNIVERSITY STUDENTS AND MULTINATIONAL CORPORATIONS

**Han Nu Ngoc Ton (Corresponding author)**

*Vice Head and Lecturer, Center for Public Administration, International University, Vietnam National University, Ho Chi Minh City, Vietnam*

**Luu Thi Minh Anh**

*Bachelor Student, School of Business, International University, Vietnam National University, Ho Chi Minh City, Vietnam*

**Trang Minh Tran-Pham**

*Graduated Bachelor, School of Business, International University, Vietnam National University, Ho Chi Minh City, Vietnam*

**Tran Vu**

*PhD student, Center for Public Administration, International University, Vietnam National University, Ho Chi Minh City, Vietnam*

*Vice Principal, High School for the Gifted, Vietnam National University, Ho Chi Minh City, Vietnam*

**Bui Thi Ngoc Thao**

*Staff, Office of Students Services, International University, Vietnam National University, Ho Chi Minh City, Vietnam*

**Tran Minh Quan**

*Staff, Office of Students Services, International University, Vietnam National University, Ho Chi Minh City, Vietnam*

## ABSTRACT

Employer branding and organizational reputation have emerged as crucial tools in strategic human resource management, especially in attracting and retaining talent. However, limited research has explored how these two factors jointly influence job pursuit intention particularly from the viewpoint of university students in emerging markets like Vietnam. The study addresses this gap by examining the triangular relationship among employer branding, organizational reputation, and job pursuit intention toward multinational corporations (MNCs) operating in Vietnam. The research will address the following questions:

# Smart Firefighting Technology Patent-Based Analysis

Daeheon KIM\*.Jeonghwan Jeon\*\*

*Gyeongnam National University, Korea*

## Abstract

As the complexity and scale of fire accidents increase, interest in smart firefighting technology that can complement the limitations of existing firefighting systems is rapidly growing. This study examined the technological composition and integration characteristics of smart firefighting technology. The analysis utilized 4th Industrial Revolution technologies, including the Internet of Things (IoT), artificial intelligence (AI), drones, and sensors. This examination was conducted by examining domestic patent data. The study analyzed 2,269 patents collected from the Korean Intellectual Property Rights Information Service (KIPRIS) from 2013 to 2023 using latent Dirichlet allocation (LDA) topic modeling and network analysis. The analysis identified ten core technology topics, including "smart evacuation guidance," "intelligent fire suppression," "AI video analysis," "aerial sensor platforms," and "integrated equipment detection networks." The application of association and centrality analysis enabled the visualization of the convergence structure among technology groups. It is noteworthy that bio-environmental sensor networks and drone-based structural response have emerged as central axes of technology convergence. These technologies have been shown to enhance real-time responsiveness and prediction-based fire response capabilities.

The present study offers practical foundational data to government entities, research institutions, and industry, facilitating the establishment of R&D strategies and the promotion of technological innovation. This is achieved by elucidating the structural characteristics and future directions of smart firefighting technology.

keyword: Smart Firefighting Technology, Technology Convergence, Technology Convergence, Topic Modeling

# Antecedents and Consequences of Outside-In Marketing Capabilities with the Mediating Role of Marketing Innovations and Some Important Moderators

**Choong Il Lim**

*Doctoral Candidate of Marketing, University of Seoul, Republic of Korea*

**Sungho Lee**

*Professor of Marketing, University of Seoul, Republic of Korea*

## **Abstract**

This study aims to comprehensively understand the antecedents, consequences, and performance of outside-in marketing capabilities for sustainable competitive advantage. It explores the impact of strategic decision-making and marketing innovation on firm performance in a rapidly changing market environment. The findings of this study will provide practical insights for modern organizations, motivating them to navigate the constant dilemma between strengthening existing capabilities and meeting new challenges. As emphasized by Jeff Bezos, the approach of 'asking who our customers are and what they need rather than what we are good at and what we can do with our technology' underscores the need for companies to prioritize customer needs rather than focusing solely on internal capabilities (Lyons, 2010). This perspective suggests that organizations need to develop the ability to be agile and responsive to changes in the marketplace and, by extension, to lead the market. As the pace of change and complexity in the marketplace accelerates, Day (2011) observed that the discrepancy between the marketing capabilities of organizations and their capacity to respond is widening. This widening gap can be attributed to two primary factors. Firstly, expanding market complexity, encompassing micro-market segmentation, diversification of services, technological advancement, and the concomitant increase in customer bargaining power, has contributed to this phenomenon. The second factor is organizational adaptation barriers, such as organizational rigidity and difficulties in decision-making. To address these issues, Day (2011) emphasized the necessity for a more dynamic and adaptive marketing capability, specifically an adaptive marketing capability at the outside-in strategy level. This call for a more dynamic and adaptive marketing capability is not just a necessity but a source of inspiration for organizations to strive for excellence in their marketing strategies.

# Analyzing the Impact of Open Innovation Factors on the Performance of Firms in Korean Bio Clusters: A Study on Key Characteristics and Outcomes

**Narae Lee**

*Ph.D candidate, Graduate School of Biomedical Convergence, College of Medicine, Chungbuk National University, South Korea*

**Eungdo Kim, PhD (Corresponding)**

*Professor, Graduate School of Biomedical Convergence, College of Medicine, Chungbuk National University, South Korea*

## Abstract

The Pharmaceutical and Biotechnology Industry: A Promising Sector on the Rise Over the Past Decade. Notably, the importance of vaccines and therapeutics was highlighted during the COVID-19 pandemic, suggesting that this industry will continue to experience significant growth in the future. With population aging in developed countries, the demand for chronic disease treatment is expanding.

The global biopharmaceutical market experienced an average annual growth rate of 11.5% over the past five years (2018–2022). In 2022, Korea's biopharmaceutical market achieved record-high production and exports, driven by biosimilars and COVID-19 vaccines. The proportion of Korea's population aged 65 and older is growing rapidly, and with the country expected to become a super-aged society by 2025, the market for pharmaceuticals related to elderly diseases is projected to grow significantly.

Characteristics of the Biopharmaceutical Industry:

High Risk and High Return : The pathway to success is uncertain, requiring substantial investment

Collaborative Value Chain : Through the utilization of diverse external networks and value chains, technology transfer and collaboration are facilitated, enabling the dissemination of technology across multiple companies.

The unique characteristics of the bioindustry, coupled with recent environmental changes, underscore the critical importance of establishing and fostering bio-clusters as a means to promote the advancement of the bioindustry on a global scale.

Tacit knowledge, transferable through direct interaction, underscores the value of bio-clusters in fostering continuous collaboration and driving innovation within the bioindustry.



# Evolution of platform innovation ecosystems under the dynamic capability perspective: a case study based on the Haier

**Xiaoran Li**

*Position (Undergraduate student), Affiliation (Beijing Jiaotong University),*

**Yuxuan Xie ( corresponding author )**

*Position (Ph.D Student), Affiliation (Tsinghua University),*

**Weixin Zhu**

*Position (Mr.), Affiliation (Beijing Jiaotong University),*

## **Abstract :**

In the digital age, enterprises are confronted with increasingly fierce market competition, rapidly evolving technologies, and increasingly diverse customer demands. Building platform-based innovation ecosystems has emerged as a strategic approach to tackling these challenges. While previous research has explored ecosystems from the perspectives of business and innovation, few studies have incorporated dynamic capabilities into the analysis of platform ecosystem evolution. This study constructs a framework for platform ecosystem evolution from the perspective of dynamic capabilities, which are defined as an enterprise's ability to integrate, build, and reconfigure internal and external resources in response to environmental changes. Through an in-depth case study of the Haier Group, this research illustrates how platform-based organizations leverage dynamic capabilities—such as sensing user needs, coordinating resources, and organizational transformation—to drive continuous innovation and ecosystem development. The findings indicate that dynamic capabilities play a crucial role at various stages of ecosystem evolution and complement the self-organizing logic of platform enterprises. By linking internal organizational mechanisms with external platform dynamics, this study contributes to a dynamic capabilities-based understanding of platform innovation ecosystems and offers practical insights for enterprises seeking resilience and adaptability in the era of the Internet of Things (IoT).

Keywords: dynamic capabilities; Haier; innovation ecosystem; platform innovation ecosystem

# Classifying Open Innovation Networks : 3D Perspectives and Productivity Insights

**Jaehoon Yang**

*Senior researcher, Advanced Institute of Convergence Technology, South Korea*

**Eungdo Kim(Corr.)**

*Professor, Graduate School of Biomedical Convergence, Chungbuk National University, South Korea*

**Junseok Hwang**

*Professor, Technology, Management, Economics and Policy Program, Seoul National University, South Korea*

## Abstract

This study defines open innovation networks through a three-dimensional framework comprising collaboration types, partners, and innovation stages, and performs clustering and productivity analysis. While prior studies have primarily focused on qualitative analyses or single dimensions of open innovation networks (e.g., collaboration type or partner), this study differentiates itself by employing a multidimensional framework to quantitatively classify collaboration networks and evaluate factors influencing productivity comprehensively. The networks were categorized into clusters such as R&D-focused university partnerships and commercialization-driven corporate collaborations. Clusters with high productivity predominantly featured licensing and corporate collaborations at the commercialization stage. Key factors influencing productivity included firm age, revenue scale, and R&D investment in biotechnology. The findings suggest that firms can maximize productivity by strategically selecting specific collaboration networks at distinct stages. Furthermore, this study highlights the need for financial and institutional support to promote stage-specific collaboration networks, providing actionable insights for policymakers.

**Keywords:** Open Innovation Networks, Meta-Frontier Analysis, Biotechnology

# Open Innovation in Higher Education: A Systematic Literature Review and Bibliometric Analysis

**John Benette John<sup>1</sup>**

*Assistant Professor – Senior Scale, Manipal School of Architecture and Planning,  
Manipal Academy of Higher Education, Karnataka, Manipal, 576104, India.*

**Dr. Sumukh S. Hungund<sup>2</sup> (Corr.)**

*Assistant Professor – Selection Grade, Department of Humanities & Management,  
Manipal Institute of Technology, Manipal Academy of Higher Education, Karnataka,  
Manipal, 576104, India.*

**Dr. Deepika Shetty<sup>3</sup>**

*Professor, Manipal School of Architecture and Planning,  
Manipal Academy of Higher Education, Karnataka, Manipal, 576104, India.*

## Abstract

The purpose of the study is to conduct a literature review, which uses a PRISMA-based bibliometric analysis of articles from 2019 to 2025 in the Scopus database, together with keyword co-occurrence analysis, to investigate recent developments in Open Innovation (OI) in higher education settings. The results demonstrate how Open Innovation (OI) can help students in any higher education setting/ discipline, to develop their digital skills, creativity, and innovation by using hands-on, group activities like hackathons, ideathons, living labs, ecosystems, etc. These methods tackle actual industrial difficulties, which greatly improve entrepreneurial readiness. However, the study finds a significant research gap concerning the genuine incorporation and authentication of OI practices/techniques in conventional teaching and learning procedures. It emphasises the need for teachers to be well prepared to adapt to this change in pedagogy, especially post-COVID. It is recommended that future research studies need to investigate the integration of OI with traditional teaching approaches empirically, evaluating its long-term effects and generalisability across various educational contexts and datasets to make sure students are prepared as market-ready at solving current industry/professional problems.

Keywords: Open Innovation, Higher Education, Teaching-learning, Bibliometric Analysis, Keyword co-occurrence.

# WHY THE POLICY COULD NOT ABSORBT BY SMES? – A VIEW THROUGH RECIPROCITY ‘LENS’ IN A CASE IN VIETNAM

**Nguyen Manh Quan, PhD.,**

*Institute of Business Studies and Development (INBUS), HUBT,*

**Nguyen Manh Khang, PhD’ cand.,**

*Hanoi University of Business and Technology, Vietnam*

**Nguyen Le Thanh, PhD’ can.,**

*Vietjet Air, Vietnam*

## **Abstract:**

The article analyses the role of firm's capacity on the effectiveness of the SME' support policies in particular and the development policy in general of the government in Vietnam. Using the concepts of absorptive capacity (AC) of firm on technology and policy, the article tries to show the influence of the relationship between government policy and the adoption and transformation of the policies on the enterprise side on the growth. The analysis looks from the business management' point of view to identify issues related to the policy effectiveness. The approach of reciprocity applied in the business management may yield useful findings for practical implications.

Keywords: policy impact, absorptive capacity, managerial approach of reciprocity, social capital.

# Complex Adaptive Systems and Circular Economy Business Model Resilience in Sustainable Innovation Ecosystems

**Pannyabhas Punnyadhanasakul**

*Global business Lecturer, M.Sc. in International Technology and Innovation Management, Khon Kaen University  
International College, Thailand*

**Phaninee Naruetharadhol\***

*Associate Professor, Ph.D., Center for Sustainable Innovation and Society, Khon Kaen University, Thailand*

## Abstract

Fostering economic growth while addressing environmental challenges is a critical priority for modern innovation ecosystems. The transition toward circular economy business models within sustainable innovation ecosystems provides a promising approach to achieving this balance. By incorporating circular economy principles—such as minimizing the use of virgin raw materials, extending product value, and promoting access over ownership—circular economy business models create opportunities for sustainable economic activity. However, coordinating these systems is highly complex, involving diverse stakeholders such as producers, consumers, policymakers, researchers, and service providers, all of whom interact through forward and reverse value chains. These interconnected activities contribute to resource recovery, product life extension, and closed-loop processes, significantly increasing systemic complexity.

This study aims to address the gap in understanding how coordination mechanisms influence the resilience of circular economy business models in dynamic and complex ecosystems. While previous research has explored the dynamics of collaboration and competition in circular systems, there has been limited investigation into how such mechanisms perform under varying levels of complexity in practice. This research adopts the complex adaptive systems framework and employs an agent-based modeling approach to conceptualize circular economy business models as dynamic ecosystems where multiple agents co-evolve toward shared goals. The research question guiding this study is: How do coordination mechanisms, grounded in the principles of complex adaptive systems, manage systemic complexity and enhance the resilience of circular economy business models within sustainable innovation ecosystems?

To answer this question, this study will simulate scenarios of varying levels of collaboration and adaptability among ecosystem stakeholders, using real-world behavioral data from 35 participants.

# Unlocking New Growth Opportunities for Medical Device Startups through IPO

**Dongwoo Kim**

*Adjunct Professor, Sungkyunkwan University, Republic of Korea*

**Kwangsoo Shin (Corr.)**

*Assistant Professor, The Catholic University of Korea, Republic of Korea*

## **Abstract:**

The objective of this study is to investigate whether Initial Public Offering (hereafter, IPO) can contribute to the growth of medical device startups in the medical device industry by examining 88 IPO cases in Korea from 2018 to 2024. The medical device industry is one of the most innovative and rapidly evolving sectors, driven by advancements in technology, increasing demand for healthcare solutions, and a focus on improving patient outcomes. While the vast amount of research on the topic of startup exists, there are very limited number of studies on the topic of the IPO of medical device companies. This study attempts to understand how medical device startups drive their growth by leveraging IPO. To identify the emerging trends of IPO in the medical device industry, this research selected case study as an appropriate method to understand how each device startup is driving growth. The findings from this study suggest that the medical device startups in Korea continue to achieve accelerated growth by actively driving IPO in the dynamic market landscape.

**Keywords:** Medical Device, IPO, KOSPI, KOSDAQ, and Open Innovation

# Adoption Behavior of Thai SMEs Entrepreneurs Towards Carbon Footprint Labels on Organic Food Products

**Teerapong Pienwisetkaew**

*Lecturer, International College, Khon Kaen University, Thailand,*

**Chavis Ketkaew\***

*Associate Professor, Ph.D., Center for Sustainable Innovation and Society, Khon Kaen University, Thailand, Thai*

## **Abstract**

This study explores the factors influencing Thai SMEs' adoption of carbon footprint labels in the organic food sector. Specifically, the research examines how determinants such as positive attitudes toward carbon footprint labeling, stakeholder pressure, customer demand, financial capability, and technological readiness influence adoption behavior. The study also investigates the moderating roles of regulatory support, market competitiveness, business model innovation (BMI), and sustainability performance. These moderating factors provide a nuanced understanding of how internal and external contextual variables interact with adoption behavior, creating a comprehensive framework for assessing adoption in the target sector.

Eco-labels, such as carbon footprint labels, are instrumental in promoting sustainability and reducing environmental impacts. They enhance consumer trust and differentiate firms in the market but face challenges like consumer confusion and lack of standardized frameworks (Evans et al., 2017). Financial and technical barriers particularly affect SMEs in developing regions, while rising consumer demand and awareness act as strong motivators for adoption (Elhusseiny & Crispim, 2022; Vecchio & Annunziata, 2015)

Business model innovation (BMI) facilitates the integration of sustainability into core business processes, enabling firms to create, deliver, and capture value efficiently. BMI has been linked to increased resource optimization and waste reduction, enhancing firms' capacity to adopt practices such as carbon footprint labeling (Evans et al., 2017). Similarly, sustainability performance, encompassing environmental, social, and economic outcomes, reflects firms' alignment with regulatory and stakeholder expectations. These contextual factors, as moderating variables, shape the effectiveness of adoption determinants, emphasizing their role in facilitating adoption under varying conditions (Yang et al., 2017).

# Flexible Work Arrangements and Employee Engagement in E-commerce – a literature review

**Elina Pentjusa, Evita Kalmane-Pivkina**

*Faculty of Engineering Economics and Management, Riga Technical University, Kalnciema Str. 6, LV-1048 Riga,  
Latvia*

## **Abstract**

Flexible work arrangements (FWAs) are increasingly integrated into organizational strategies, especially in digitally dependent sectors like e-commerce. However, the underlying mechanisms linking FWAs to employee engagement remain under-theorized. This paper conducts an integrative literature review and qualitative content analysis of 44 peer-reviewed studies to conceptualize how FWAs influence engagement outcomes. Drawing on the Job Demands–Resources model, Social Exchange Theory, and Spillover Theory, the study proposes a conceptual framework that positions well-being, autonomy, and work–life balance as key mediators. A supportive organizational context is identified as a critical moderator. This model contributes to theory by deepening our understanding of the relational infrastructure of FWAs, and provides practitioners with design guidelines for sustainable engagement in flexible work systems. The findings offer a foundation for future empirical validation and cross-sectoral application.



# Assessment of the Impact of Social Media Marketing on Brand Engagement and Sales Performance of Online Service Companies in Sri Lanka

**Stephan Harith Shamalka Wanasinghe ,Master,**

*Riga Technical University, Faculty of Engineering Economics and Management, Sri Lanka*

**Ieva Andersone,**

*Assist.prof, Riga Technical University, Faculty of Engineering Economics and Management, Latvia*

## Abstract

Social media marketing reinvents marketing. In a separate campaign, social media marketing can measure brand engagement, reach, and conversions in more places than traditional marketing. Affordable smartphones and improved internet infrastructure have enabled a large portion of the population to use social media. Online business and promotional strategies have emerged due to market competition. Firms that fail to adapt and transition to this digital paradigm are unlikely to sustain their market presence over an extended period of time. This study was conducted to identify how social media marketing strategies and factors impact brand engagement and online sales performance.

Several theories and models underpin Social Media Marketing, helping to understand and optimize digital marketing strategies. The social media management model (Naylor, Lamberton, and West, 2012),, influence theory (Katz and Lazarsfeld,1955), and two-step flow theory (Katz and Lazarsfeld, 1955) dominated this study.

Online brand engagement often involves two-way communication between brands and their audiences. According to Brodie et al. (2013), customers actively create brand experiences by interacting with brand content across digital touchpoints. Brand engagement is participatory in the digital landscape, so this definition emphasizes it.

Hollebeek (2011) says digital brand engagement increases brand loyalty and advocacy. Customers who engage with brands are more likely to recommend them to friends and followers on social media. Advocates like these can spread the brand's message and influence today.

Brands can create online communities on social media (Hollebeek et al., 2019). These online communities let brand fans connect, share, and interact. Brands create communities to build loyalty, advocacy, and customer belonging. Social media impacts brand engagement.

# Aligning Organizational Culture with ESG Goals in Korean Small and Medium Enterprises

**Gi-Ran Kim**

*(Carolina University)*

**Kwangho Jung**

*(Seoul National University)*

## Abstract

This study examines how organizational culture influences the alignment of Environmental, Social, and Governance (ESG) goals in Korean small and medium enterprises (SMEs), using Hofstede's cultural model with its six key dimensions as a framework for analysis. The research explores how characteristics such as high Power Distance (PDI) and Collectivism (IDV) facilitate hierarchical decision-making and collaboration, while low Masculinity (MAS) and strong Uncertainty Avoidance (UAI) foster inclusive and risk-averse approaches to ESG implementation. Furthermore, the study highlights the influence of Long-Term Orientation (LTO) in prioritizing sustainability and Restraint (IVR) in promoting disciplined resource management. By integrating Hofstede's cultural dimensions with case studies from Korean SMEs, the research identifies organizational practices that enhance ESG integration and sustainability. The findings offer practical insights for SMEs to leverage cultural strengths while aligning with ESG goals, providing actionable strategies for policymakers and business leaders to drive sustainable development in the SME sector. Keywords: Organizational Culture, ESG Goals, Korean SMEs, Hofstede's Cultural Dimensions, Power Distance Index (PDI), Collectivism (IDV), Masculinity vs. Femininity (MAS), Uncertainty Avoidance Index (UAI), Long-Term Orientation (LTO), Indulgence vs. Restraint (IVR)

# A Model for Promoting Local Entrepreneurship centered on Regional Universities

Sangpil Yoon(Corr.)

*Assistant Professor, Gyeongsang National University, Jinju, South Korea*

## Abstract

**Purpose/ Research Question:** Today, Korea is experiencing a declining birth rate and economic recession. The Korean government is implementing a policy called local content and entrepreneurship promoting to solve this problem. At this time, the role of regional universities where young people who are the main players in entrepreneurship gather is important. Therefore, this study aims to present a model for regional universities to activate local entrepreneurship.

**Key Literature Reviews (About 3~5 papers):** Recent studies emphasize the pivotal role of regional universities in revitalizing local economies through entrepreneurship. Lim and Xia (2024) highlight how university student startups can generate tangible economic impact by utilizing local resources and fostering innovation. Building on this, Delbridge et al. (2025) argue that universities are increasingly becoming key drivers of regional innovation in peripheral areas, especially when they collaborate with public actors and local stakeholders. Tripa et al. (2025) support this perspective by emphasizing the institutional transformation of higher education into entrepreneurial universities, enabled through supportive policy frameworks and internal innovation mechanisms.

**Design/ Methodology/ Approach:** This study will present such a model and analyze the case of university program implementation based on the model.

**(Expected) Findings/Results:** The model includes spreading local entrepreneurship culture, collaborating with local residents, and experimenting with entrepreneurship centered on the region.

**Research limitations/ Implications:** Through this, we aim to define the role of universities in revitalizing the regional economy and provide a model for cooperation between universities and regions.

**Keywords:** Local Entrepreneurship, Local Content, Regional Economy, Start-up, University Cooperation, University Education

# Jade can be polished by stones from other hills? Promotion approach selection for video platforms in the age of social media

Ruihui Lin, Xiaoyu Chen\*

*Nankai University, China*

**Abstract:**

The boom of short videos containing the original content of a movie or TV drama on social media, which is named by "Secondary Creation", has an unclear impact on the corresponding long video platform. This study developed a game-theory model to explore the long video platform' optimal advertising strategy between traditional informative advertising strategy and "secondary creation" advertising strategy which is associated with market expansion effect, cannibalization effect, and dispersed effect. We find that the video platform should uses traditional advertising strategy when advertisement is less costly and the consumers' value of the original content after being effected by "Secondary Creation" is low. Otherwise, the long video platform should choose "Secondary Creation" advertising strategy. We further show that in each strategy, influence of dispersed effect on consumer surplus is not monotonous. This result provides possible theoretical explanations for mixed empirical conclusions regarding whether "secondary creation" of original content is useful or harmful to long video platform.

**Key words:** Information goods, Advertising strategy, Cannibalization effect, Dispersed effect

# ENHANCING ORGANIZATIONAL PERFORMANCE: THE ROLE OF GOVERNMENT SUPPORT, AI CAPABILITY, AND STRATEGIC FORESIGHT

**Linh Ho Ngoc Cao**

*Master Student, Center for Public Administration, Finance and Accounting, International University, Vietnam  
National University - Ho Chi Minh City, Vietnam*

**Phuong Van Nguyen (corr)**

*Assoc. Prof., Center for Public Administration, International University, Vietnam National University-Ho Chi  
Minh City, Vietnam*

## **Abstract**

This study examines how artificial intelligence capabilities (AIC) influence organizational performance (OP) in the public sector, emphasizing the mediating role of strategic foresight (SF) and the enabling impact of institutional support. Drawing on the Resource-Based View (RBV), the research analyzes survey data from 225 public sector leaders in Vietnam using partial least squares structural equation modeling (PLS-SEM). The findings indicate that AIC does not directly improve OP; instead, its impact is channeled through SF, which enhances the organization's ability to anticipate and adapt to change. Government incentives and regulatory support emerge as significant predictors of AIC, whereas organizational innovation shows no direct influence on AIC or OP. These results highlight the importance of aligning technological investments with forward-looking strategic practices and supportive institutional frameworks to unlock performance gains in public organizations.

Key words: Artificial Intelligence; AI capability; Public organization; Organizational performance; Strategic foresight.

# Enabling Business Model Innovation through Dynamic Capabilities: The Role of Corporate Foresight, Big Data, and Government Support in an Emerging Economy

**Vu Van Nguyen**

*Ph.D. Student, Center for Public Administration, International University, Vietnam National University, Ho Chi Minh City, Vietnam*

**Phuong Van Nguyen (Corr)**

*Assoc. Prof., Center for Public Administration, International University, Vietnam National University, Ho Chi Minh City, Vietnam*

**Nhi Ngoc Y Vo**

*Research Assistant, Center for Public Administration, International University, Vietnam National University, Ho Chi Minh City, Vietnam*

**Huan Tuong Vo**

*Lecturer, School of Business, International University, Vietnam National University Ho Chi Minh City, Vietnam*

## Abstract

This study examines how technology features, market features, corporate foresight, decision-making processes, big data analytics capability, and government support interact to drive business model innovation in Vietnam's emerging economy. Drawing on dynamic capability theory, the research explores how these internal capabilities and external factors collectively enable firms to navigate environmental turbulence and engage in open innovation practices. Survey data from 255 Vietnamese managers were analyzed using Partial Least Squares Structural Equation Modeling. The results show that corporate foresight, big data analytics capability, decision-making processes, and government support positively influence business model innovation, while government support does not significantly enhance corporate foresight. The findings highlight the critical role of corporate foresight and data-driven decision-making in enabling strategic agility and business model transformation. Furthermore, they underscore how dynamic capabilities can enhance firms' ability to leverage external knowledge and partnerships, thereby fostering open innovation. This study contributes to dynamic capability and open innovation literature by clarifying how internal and external enablers jointly shape innovation outcomes in emerging market contexts. It also offers practical insights for managers seeking to strengthen foresight practices, promote data-driven cultures, and strategically leverage government support to enhance innovation performance.

# Open Innovation in Micromobility – From Crowdsourcing to Co-Creating Sustainable Solutions

**Katarzyna Turoń✉**

*Associate professor, Silesian University of Technology, Faculty of Transport and Aviation Engineering, Poland*

**Andrzej Kubik**

*Associate professor, Silesian University of Technology, Faculty of Transport and Aviation Engineering, Poland*

## Abstract

Micromobility, encompassing vehicles such as e-scooters, bikes, and electric scooters, has emerged as a key element of sustainable urban transportation, addressing challenges like congestion and emissions. However, the successful adoption of micromobility solutions depends on user acceptance and collaboration between stakeholders. This study investigates whether users are more inclined to use micromobility services if they can participate in shaping them through open innovation processes like crowdsourcing and co-creation. Conducted in selected mid-sized Polish cities, including Wrocław, Katowice, and Gdynia, the research combines surveys, interviews, and Social Network Analysis (SNA) to explore the conditions under which open innovation could enhance the adoption of micromobility. Building on the theoretical framework of open innovation, this study identifies the opportunities and challenges of implementing such participatory approaches in urban mobility systems. The findings aim to provide actionable insights for stakeholders to design more inclusive and user-oriented micromobility solutions.

To evaluate the potential for open innovation in micromobility and determine whether users are more inclined to adopt these services when they can actively participate in their development.

Are users more likely to use micromobility services if they can participate in shaping them through crowdsourcing or co-creation?

What forms of open innovation are most attractive to potential users?

What conditions are required to implement open innovation in micromobility effectively?

Does the current network of stakeholders support the potential for open innovation?

# Corporate-Startup Collaboration Research Trends Analysis Using BERTopic: Identifying Research Topic Structure and Development Patterns through Time-Series Topic Modeling

**Sehoon Park**

*Senior Research Engineer, Beautiful Village Lab, Gyeongsang National University, Republic of Korea..*

**Dongphil Chun (Corr.).**

*Professor, Graduate School of Management of Technology, Pukyong National University, Republic of Korea.*

## Abstract

**Purpose/Research Question:** This study aims to identify the intellectual structure and temporal evolution patterns of Corporate-Startup Collaboration (CSC) research. Specifically, it explores (1) what topics domestic and international CSC researchers focus on respectively and what structural differences exist, and (2) how domestic and international CSC topics change over time and what characteristics each regional development pattern exhibits.

**Key Literature Reviews:** CSC research has developed based on Chesbrough's (2003) open innovation paradigm, but existing LDA-based topic modeling has shown limitations including insufficient consideration of semantic relationships, subjective topic number determination, and static analysis constraints. This study introduces BERTopic to overcome these limitations and particularly explores the new research area of legacy firm-startup collaboration.

**Design/Methodology/Approach:** BERTopic modeling was performed on 205 domestic KCI papers and 194 international SSCI-SCOPUS papers published from 2000 to 2024. Optimal models were selected through parameter sensitivity analysis, and domestic and international research trends were compared through time-series topic analysis.

**Findings/Results:** Domestic CSC research shows a relationship-centered approach dominated by 'win-win cooperation and business ecosystem' (22.9%) within a diversified structure of 7 topics, while international research demonstrates a performance-centered approach dominated by 'sustainability and supply chain entrepreneurship' (52.1%) within a concentrated structure of 3 topics. Time-series analysis reveals contrasting development patterns: domestic gradual accumulative type (2014 turning point) versus international rapid concentration type (2018 turning point).

**Keywords:** Corporate-startup collaboration, BERTopic, topic modeling, research trend analysis, regional innovation ecosystem, legacy firms



# GLASS CEILING, JOB STRAIN AND INTENTION TO QUIT AMONG FEMALE EMPLOYEES IN VIETNAM'S PUBLIC SECTOR

**Han Nu Ngoc Ton**

*Vice Head and Lecturer, Center for Public Administration, International University, Vietnam  
National University, Ho Chi Minh City, Vietnam*

**Tien Chau Thuy Huynh (Corr.).**

*Researcher, Center for Public Administration, International University, Vietnam National  
University, Ho Chi Minh City, Vietnam*

*Le Thi Ha Bao Khanh*

*Graduated bachelor student, School of Business, International University, Vietnam National  
University, Ho Chi Minh City, Vietnam*

**Nhan Trong Nguyen**

*Bachelor student, School of Economics, Finance and Accounting - International University,  
Vietnam National University, Ho Chi Minh City, Vietnam*

**Thy Thi Bao Huynh**

*Bachelor student, School of Business, International University, Vietnam National University, Ho  
Chi Minh City, Vietnam*

## Abstract

Gender disparities in leadership continue to persist as women face structural barriers such as gender bias and restricted advancement opportunities. Focusing on female employees in Vietnam's public sector, it examines how the glass ceiling and work-to-family conflict impact well-being at work (e.g., job strain and intention to quit). Indeed, drawing on the Conservation of Resources Theory, Gendered Organizational Theory, and the Job Demands-Control Model, the study proposes sequencing relationships from glass ceiling, work-to-family conflict, to job strain and intention to quit. Data were collected from 635 female public sector employees in Vietnam, including those in leadership positions (n = 399) and non-leaders (n = 236). Using Partial Least Squares Structural Equation Modeling (PLS-SEM) for inferential analysis, it found significant sequencing relationships (i.e., all positive signs) from glass ceiling, work-to-family conflict, job strain, to intention to quit. In addition, glass ceiling had a significantly positive impact on intention to quit.

# Open Innovation for Green Transition in Energy Sector: A Literature Review

Izabela Jonek-Kowalska\*1, Sara Rupacz1, Aneta Michalak1

\* - corresponding author; 1 – Silesian University of Technology, Faculty of Organization and Management, Poland

## Abstract:

The main objective of this article is to conduct a literature review on the use of open innovation (OI) for green transition in order to identify tools and methods that can make green transition more effective, efficient, and socially acceptable. This review is accompanied by an attempt to answer the following research questions: R1. How can open innovation be used in the economy and by individual entities to achieve the goals of the green transition? R2. How can individual stakeholders be activated and motivated to participate in the process of creating open innovation for the green transition? and R3. What are the real effects of using open innovation on a macroeconomic, social, and individual scale? The results allow concluding that OI is used by enterprises, cities, regions, and entire economies. Among the methods of activating and motivating individual stakeholders to engage in the process of creating OI for green transition, the following can be selected: (1) internal resources and competencies (knowledge management, internal programs, open leadership, trust, complementarity of resources); (2) partnership characteristics (modern business models, involvement of partnership intermediaries, strengthening relationships with suppliers and customers, involvement of prosumers, cooperation with universities and research institutions); (3) external legal and regulatory conditions (protection of intellectual property rights, pro-innovation and pro-environmental education systems, creation of a legal framework for cooperation between science and business); and (4) external technical and organizational solutions (online platforms, social media, Living Labs, external sources of knowledge). The most frequently mentioned individual effects of open innovation in the energy sector include: improved efficiency, effectiveness and competitiveness in environmental management and the implementation of sustainable development, as well as the use of modern technologies. At the economic level, OI supports investment and economic growth. It can also have a positive impact on reducing energy poverty and developing renewable energy sources, including in emerging economies. This form of innovation also promotes social integration and the creation of social value.

## Public Private Partnerships. Case of Baltics

**Anita Titova**

*Assistant professor, Ph.D, Faculty of Engineering Economics and Management, Riga Technical University,  
Latvian*

**Natalja Lace**

*Professor, Dr.oec, Faculty of Engineering Economics and Management, Riga Technical University, Latvian*

### Abstract

It is widely acknowledged that infrastructure significantly influences a country's economic growth and social welfare. The development and even maintenance of the existing infrastructure require high financial investments with a long repayment period. Because of budgetary constraints, only part of the expenses related to infrastructure development and maintenance could be covered by governmental money. Private investments are essential to participate in this process. Still due to regulation that limits private investors' ability to take over the provision of public services without special permission from a state, long repayment periods and other specifics related to public services, the involvement of private investors is a complex process.

Public-private partnerships (PPP) are a recognized mechanism for attracting private funding. In the Baltic States, developing effective PPP models is especially crucial, especially given the shifts in EU funding priorities making it more challenging to access the resources for infrastructure projects and substantial benefits previously derived from EU Cohesion funds. The amount of concluded PPP in Baltic States could be regarded as suboptimal.

This research aims to explore and identify the factors needed to facilitate the initiation and implementation of successful public-private partnership (PPP) projects in the Baltic States.

There are very few recent studies regarding the PPP in the Baltic States. The existing ones cover only specific infrastructure asset types. For example liquefied natural gas infrastructure and the transport sector. These studies do not answer what impedes the usage of the PPP mechanism in the Baltic States (Matisone and Lace, 2023).

There are a few good examples of private investors' participation in infrastructure projects in the Baltic States. Especially it concerns Latvia. The exemption is the Kekava Bypass PPP project - the first highway infrastructure PPP project in the Baltic States implemented (Akimovs et al, 2021).

# Process Analysis of Startup Support Programs in Korea Using Process Mining: A Focus on Growth Stages of Startup

**Sanghyun Sung**

*Associate Assistant Professor, Department of Management Information Systems*

*Gyeongsang National University, Republic of Korea*

**Junghyun Yoon (Corr)**

*Associate Assistant Professor, School of Business*

*Yeungnam University, Republic of Korea*

## Abstract

Recent research on startup support highlights three major trends: global ecosystem activation, the proliferation of industry-specific programs, and the convergence of technological innovation. According to the 2024 Global Startup Ecosystem Report (GSER) by Startup Genome, Silicon Valley, New York, and London remain the top three ecosystems, while Seoul and Tokyo have risen to 9th and 10th places, respectively, establishing themselves as key ecosystems in Asia. The report analyzes over 300 regional ecosystems and emphasizes the importance of tailoring startup support policies to the strengths of each region.

From the perspective of industry-specific startup support programs, accelerators and incubators focusing on sectors like Cleantech, Fintech, and Healthcare are rapidly expanding. This study collected event log data from institutions and programs related to startup support projects that fostered successful companies. Process mining was applied to visualize the actual connections between startup support programs and to analyze standardized processes. Key analysis areas include target beneficiaries, scope of support, and follow-up processes.

The analysis of startup support processes plays a crucial role in enhancing the likelihood of startup success and reducing inefficiencies within the business environment. Early-stage startups face significant resource and time constraints, making it essential to clearly understand and optimize the flow of each process. Such analysis helps startups minimize resource waste, support effective customer interactions, and clarify roles and responsibilities within teams. By maximizing efficiency in the early stages, startups can optimize resources while achieving sustainable growth and customer satisfaction simultaneously.

# On Classification of Factors for Analysis of Conflict Triggers and Prevention Mechanisms in Organizations

**Jana Ozoliņa**

*Master, Faculty of Engineering Economics and Management, Riga Technical University, Latvian*

**Sanita Šaitere**

*Dr.psych, Department of Psychology, Faculty of Education Sciences and Psychology, University of Latvia*

*Riga, 1 Imanta's 7th line, LV-1083, Latvia*

**Elīna Gaile - Sarkane**

*Prof. Researcher, Faculty of Engineering Economics and Management, Riga Technical University, Latvian*

## Abstract

This study explores the classification of factors involved in conflict triggers and the effectiveness of prevention mechanisms within organizational environments. By employing a systematic classification framework, the research identifies, organizes, and analyzes variables that contribute to the emergence, escalation, and resolution of conflicts. The study integrates theoretical constructs with empirical insights to facilitate a structured understanding of the interplay between structural, interpersonal, and contextual elements.

Primary conflict triggers - such as resource allocation disparities, communication breakdowns, and cultural misalignments - are examined in relation to preventive strategies, including mediation models, leadership interventions, and policy - based conflict resolution mechanisms. A mixed - methods approach is adopted, combining quantitative analysis of conflict incidence data with qualitative case studies, which serve to validate the proposed classification schema.

Findings reveal critical linkages among organizational hierarchies, decision - making structures, and perceived equity, all of which shape conflict trajectories. Moreover, the study emphasizes the value of proactive conflict mitigation over reactive responses, highlighting practical measures to sustain organizational cohesion and productivity.

This paper contributes a robust taxonomy of conflict-related factors and offers actionable insights for practitioners. It underlines the importance of tailoring prevention strategies to specific organizational contexts and promoting a collaborative culture that reduces the potential for conflict escalation.

Keywords: Conflict Triggers, Prevention Mechanisms, Organizational Dynamics, Conflict Management, Classification Framework

# Drivers of Creative Deviance from Perspective of Open Innovation and Entrepreneurship

Nodira Sanakulova<sup>1</sup> and Junghyun Yoon<sup>2\*</sup>

*1 School of Business, Yeungnam University, Republic of Korea*

*2 School of Business, Yeungnam University, Republic of Korea;*

## Abstract

This study investigates the linkages among innovativeness, risk-taking, proactiveness, creative deviance, and innovative behavior in the IT sector in Uzbekistan, drawing on entrepreneurship theory. Using a survey method, this study analyzed data from 350 samples to reveal significant positive associations between entrepreneurship traits and both creative deviance and innovative behavior. The study highlights the pivotal role of creative deviance as a mediator in the relationship between innovativeness, risk-taking, proactiveness, and innovative behavior. This research contributes new insights to the literature by explaining the importance of entrepreneurship in cultivating innovative behavior. Moreover, it offers practical implications for enhancing entrepreneurship and creative deviance to foster a culture of innovation in Uzbekistan's IT sector.

Keywords: creative deviance; innovative behavior; entrepreneurship; innovativeness; risk-taking; proactiveness;

## 1. Introduction

At Nichia, I continually violated the CEO's orders to stop my research or risk losing my job. Consequently, by ignoring these orders, I invented LED bright lighting technology, which ushered in a multibillion-dollar industry.

—Extract from Johnstone (2007)

Innovation involves creating new or improved products, services, processes, or business models that benefit both the company and its clients. Augsdorfer (1996) suggests that "management should have direct control over innovation" (p. 91), implying that a centralized approach to managing innovation is advantageous for organizations. Managers play a crucial role in fostering innovation by overseeing and carefully curating creative ideas within the organization (Kaplan & Norton, 2005). However, resource limitations can sometimes hinder the implementation of new ideas, leading to structural strain within organizations.

# Exploring the growth of disruptive technology in the digital age from the perspective of patents: The evolution in the field of autonomous vehicle

**Yakun Ji**

*Position (Ph.D.), Affiliation (School of Intellectual Property, Nanjing University of Science and Technology),  
China*

**Minghan Sun**

*Position (Ph.D.), Affiliation (School of Intellectual Property, Nanjing University of Science and Technology),  
China*

**Ben Zhang (Corr.)**

*Position (Ph.D.), Affiliation (Law School, Huazhong University of Science and Technology), China*

## **Abstract:**

Currently, digitalization is accelerating its integration with various industries, and disruptive technologies are constantly emerging. This not only brings about a comprehensive innovation in the technological paradigm, but also has a wide and profound impact on human economic and social development. In this study, the complex system evolution driven by disruptive technology in the digital era is clarified. A hybrid framework based on patent analysis is proposed, which shows the new paradigm from aspects such as market competition, technical and functional systems, and external ecosystem. The autonomous vehicle is selected as a case. The results show that the transformation of the complex system driven by disruptive technology is distinctive. It can be found that a large number of new entrants and incumbent players with former advantages jointly promoted the open knowledge flow. The complex functional system leads to the fact that the disruption process is not achieved in one step, which provides an opportunity for incumbents to deal with crises. The high system complexity requires a large number of radical inventions, and contending branch paths will emerge, which is underpinned by further intensification of competition. In addition, the government has played an important role in building an open external environment through the dynamic combination of diversified policy tools. The key to implementation is based on the technology life cycle. This study proposes a new approach to analyzing disruptive technologies, which not only enriches the theory of disruptive innovation but also provides a template for understanding industrial upgrading in the digital era.

Keywords: Disruptive technology, Open Innovation, Autonomous Vehicle, Patent Network

# Classification of Sustainable Innovation in Corporate Venturing

**Diana Smite (Corr.)**

*Ph.D student, Riga Technical University, Latvia*

## **Abstract**

Corporate venturing (CV) acts as an important, if not even crucial, means of creating innovation by giving established firms access to and means for new technologies and processes.

This paper investigates different types of sustainable innovation (SI) in the context of CV by providing definitions, explaining its key elements, and how it differs from traditional corporate innovation. Innovation in the context of a sustainable CV exhibits broad interpretation and characteristics. It covers different terminology and types from cleantech and circular economy solutions to bio-based, eco, environmental, and green innovations. Regarding impact, innovations can be niche, incremental, radical, disruptive, and transformative, and cover products, processes, and organizational structure.

While CV facilitates the commercialization of SI, challenges persist in scaling them beyond niche markets due to financial risks, ownership structures, and the complexity of sustainability transitions. By synthesizing insights from recent studies, the author proposes a comprehensive analytical framework that outlines key antecedents, mediators, and outcomes of SI within CV. As a result, it lays a foundation for future empirical and theoretical research by aggregating fragmented perspectives and offering structured guidance.

Purpose/ Research Question: What are key antecedents, mediators and outcomes of SI within CV?

Design/ Methodology/ Approach: Mixed literature review.

(Expected) Findings/Results: Analytical framework of SI in CV to synthesize fragmented perspectives and offer structured guidance.

Research limitations/ Implications: Subjective bias towards the composition of the analytical framework.

Keywords: sustainable innovations, green innovations, corporate venturing, analytical framework.



**SOI 2025 10th Anniversary Conference**

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

# SOI 2025 10th Anniversary Conference

July 15(Tue.)~18(Fri.), 2025, Main Conference Days

Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon,  
Dalseong-gun, Daegu, 42988, Korea

July 18 (Friday)

## **SOI 2025 10th Anniversary Conference**

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

***July 18 (Friday)***

---

**Venue: Room 202, Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea, 09:00~10:30**

**Poster Session**

**Chairs: Natalja Lace(Riga Technical University, Latvia) & Heungju Ahn(DGIST, Korea)**

- Paper 1: "Decision-making Styles of Top Management Teams and its Impact on Financial Outcomes of Enterprises: Insights from Latvia" by **Rasma Pipiķe, Elina Gaile-Sarkane**
- Paper 2: "Fostering Innovation in the News Media Industry: Exploring Creative Coding Workshops as Catalysts for Creativity and Skill Transfer" by **Deniss Sceulovs, Jana Geldner, Viktorija Babica**
- Paper 3: "Navigating Complexities in Virtual Consumer Behavior: Uses and Gratifications Theory-Driven Innovations for Sustainable Business Practices" by **Ilze Jankovska**
- Paper 4: "A Study on the Automatic Patent Valuation by using Large Language Models" by **Hun Park\*, Jongtaik Lee, Sungtae Yoo**
- Paper 5: "E-Governance in Transition - Lessons from Latvia for a Digitally Empowered Future" by **Janis Caune**
- Paper 6: "Open innovation of firms in the semiconductor value chain; Global patent analyses and case studies of firms in South Korea, Japan, and Germany" by **JinHyo Joseph Yun\*, (Andreas Pyka)\*, Xiaofei Zhao, Yuri Sadoi, Heongu Lee**

***July 18 (Friday)***

---

**Venue: Room 203, Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea, 09:00~10:30**

**Poster Session**

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

**Chairs: Han Nu Ngoc Ton (Vietnam National University, Vietnam) & Byung Yong Hwang(KISTEP, Korea), Saimi Woo(BISTEP, Korea) & Heonggu Lee(OSP, Korea)**

- Paper 1: "Exploring the relationship between quality of employment and company performance" by **Angelina Roša\***, **Natalja Lace**
- Paper 2: "Artificial Intelligence and Firm Idiosyncratic Risk: The Role of Ethical Governance" by **Weian Li**, **Menglan Tang\***
- Paper 3: "Adoption of Ideas from Innovation Contests – Evidence from a Korean Financial Institution" by **Inhyouk Koo**, **Shijith Kumar PM\***, **Ronny Estrella**, **Hojung Ha\*\***
- Paper 4: "Factors Affecting Corporate Efficiency in Korean Biopharmaceutical Industry - Focusing on Open Innovation types by Business Model" by **Jaehoon Yang**, **Yun Gil**, **Roh**, **Eungdo Kim\***, **Junseok Hwang**
- Paper 5: "An Overview Analysis of the Patent Trends of Foreign Patentees Based on Registered Patents in Korea" by **YouEil KIM**, **EuiSeob JEONG**
- Paper 6: "Individual AI Mechanism Design Based on the Open Innovation Dynamics" by **JinHyo Joseph Yun\***, **Xiaofei Zhao**, **Heungju Ahn\***, **Kyungbae Park**

### *July 18 (Friday)*

**Venue: Room 204, Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea, 09:00~10:30**

#### **Poster Session**

**Chairs: Kyungbae Park(Sangji University, Korea) & KwangHo Jung(Seoul National Univ., Korea)**

- Paper 1: "Transforming Consumer Behavior: Utilizing Uses and Gratifications Theory to Promote Sustainable Economic Growth" by **Ilze Jankovska\***, **Deniss Sceulovs**
- Paper 2: "Explaining the foundation and change of product meaning by the social cognitive dynamic theory in a product market: Applying in the bottled water and water purifier product market in Korea" by **Dong Hawn Kim & Lee, Sungho**

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

- Paper 3: "The Impact of Technological Regimes on Firm's Innovation Activities" by **YuCheong Chon, Kwangsoo Shin\***
- Paper 4: "The Effects of External Cooperation on Innovation Performance of Information Technology Firms in South Korea" by **Daeyu Kim\*, Seunghoo Jin**
- Paper 5: "Capitalization of Contemporary Art: The Reverse Structure of Open Innovation, and the Price Paradox" by **JinHyo Joseph Yun\*, Juhyun Eune\*, Xiaofei Zhao, Giovanna Del Gaudi, Valentina Della Corte, Thierry Burger-Helmchen**

### *July 18 (Friday)*

**Venue: Room 301, Building R1, DGIST, Daegu, Korea; Address: 333, Techno jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea, 09:00~10:30**

#### **Poster Session**

**Chairs: Minhan Kim(Sangmyung University, Korea) & SungYong Choi(Hanyang Univ., Korea)**

- Paper 1: "Disruptive Technology Identification Based on the Open Innovation Network: A Case of Virtual Travel" by **Ben Zhang**
- Paper 2: "Analysis of effects before and after enactment of the National R&D Innovation Act in South Korea" by **Byung Yong Hwang\*, Sin Lee Kim, Eun Song Bae**
- Paper 3: "Analysis of open innovation performance and influencing factors of the Korean biopharmaceutical industry in bioclusters" by **MiSeon Kim, Eungdo Kim\***
- Paper 4: "Entrepreneurship in Hospital, Emerge of Doctorpreneur" by **Kwangsoo Shin; Harry Jeong\***
- Paper 5: "Key Factors Impacting Cyber Resilience in SMEs: The Role of Open Innovation in Building Cybersecurity Awareness and Collaborative Defense Strategies" by **Alona Bahmanova, Natalja Lace**
- Paper 6: "The Role of Business Models in Bridging Technology and Market: Mathematical

## SOI 2025 10th Anniversary Conference

July 14(Mon.) ~ 18(Fri.), 2025, DGIST, Daegu, South Korea

Modeling and Its Application to Artificial Intelligence” by **JinHyo Joseph Yun\***, **Xiaofei Zhao**,  
**Heungju Ahn\***, **Kyungbae Park**

# Decision-making Styles of Top Management Teams and its Impact on Financial Outcomes of Enterprises: Insights from Latvia

**First Author Rasma Pīpiķe**

*Position (Ph.D student), Affiliation (Rigas Technical University, Riga, Latvia), Latvian*

**Second Author Elīna Gaile- Sarkane**

*Position (Prof. Vice-Rector for Academic Affairs at Riga Technical University) Affiliation (Rigas Technical University, Riga, Latvia), Latvian*

## Abstract

This study examines the decision-making styles of top management teams (TMTs) and their impact on financial outcomes in enterprises, with a specific focus on Latvian businesses. It seeks to address how different decision-making approaches influence strategic and financial performance in a dynamic economic environment. The authors aim to identify key components for designing a mathematical model that determines the optimal combination of TMT (Top Management Team) members aligned with the principles of the Upper Echelons Theory. This approach provides a systematic and data-driven framework for assembling leadership teams that maximize organizational performance by combining diverse skills, experiences, and decision-making styles.

Critical literature review:

Drawing upon Upper Echelons Theory, decision-making styles are categorized into directive, analytical, conceptual, and behavioral approaches, each characterized by unique decision-making processes and implications for organizational outcomes. Analytical styles prioritize thorough data analysis, while conceptual styles emphasize creativity and innovation. Behavioral decision-makers foster collaboration and stakeholder engagement, and directive styles ensure added value. Previous studies highlight the interplay between decision-making styles, team diversity, and organizational effectiveness.

1. Gachugu, E. M., Awino, Z. B., Machuki, V., & Iraki, X. N. (2019). Top management team diversity and organizational performance: The mediating effect of strategic change. *European Scientific Journal, ESJ*, 15(4), 345–363.

2. Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, 9(2), 193–206. <https://doi.org/10.5465/amr.1984.4277628>



# Fostering Innovation in the News Media Industry: Exploring Creative Coding Workshops as Catalysts for Creativity and Skill Transfer

**Deniss Sceulovs (Corr.)**

*Professor, Riga Technical University, Latvia*

**Jana Geldner**

*Master, Riga Technical University, Germany*

**Viktorija Babica**

*Researcher, Riga Technical University, Latvia*

## Abstract

This paper investigates how Art-Technology Initiatives, such as Creative Coding workshops, can serve as practical tools for fostering individual creativity about technology, and whether these outcomes align with the needs of the news media industry.

A mixed-methods study was conducted. Quantitative data were collected via a survey among participants of CC Berlin, Germany's largest creative coding community, to assess improvements in creativity-related factors. Qualitative interviews were conducted with journalists from a major German media organisation to account for differences in workplace context and task motivation.

The results show that creative coding workshops enhance domain-relevant skills and creativity-relevant processes, particularly in the context of technological experimentation. Participants reported increased intrinsic motivation, openness to uncertainty, and engagement with digital tools. Journalists expressed strong interest in such workshops, although structural barriers, such as time constraints and lack of follow-up, limit practical implementation. The findings align with the Componential Theory of Creativity, confirming the importance of task motivation, domain skills, and creativity-relevant processes.

As workshop data reflect voluntary participation, motivation levels may differ from professional environments. Further research in controlled, workplace-specific settings is recommended to assess long-term impacts and scalability. This paper's empirical research period was four months, from March to June 2024.

The study suggests that art-technology workshops are a promising tool for creativity management in the news media industry.

# Navigating Complexities in Virtual Consumer Behavior: Innovations for Sustainable Business Practices

**Ilze Jankovska, Ph. D.**

*Assistant Professor and Researcher at Riga Technical University, Faculty of Engineering Economics and Management, Latvia*

## Abstract

This study explores the intricacies of virtual consumer behavior through the lenses of Social Exchange Theory (SET) and Expectation-Confirmation Theory (ECT), focusing on how businesses can create value and sustain satisfaction in digital environments to drive sustainable business practices. Social Exchange Theory emphasizes the cost-benefit dynamics in consumer-business relationships, particularly in virtual marketplaces, where delivering personalized offerings, competitive pricing, and convenience enhances perceived value. Moore (1993) underscores the importance of strategic collaboration in competitive ecosystems. Hennig-Thurau et al. (2004) highlight trust and satisfaction as essential pillars for successful e-commerce relationships, showing how businesses can foster loyalty and engagement by prioritizing these factors.

On the other hand, the Expectation-Confirmation Theory investigates how consumer satisfaction stems from aligning initial expectations with actual experiences. Kim, Ferrin, and Rao (2009) demonstrate that trust and the fulfillment of expectations drive long-term consumer relationships in digital platforms. Similarly, Casaló, Flavián, and Ibáñez-Sánchez (2017) reveal that engaging content and hedonistic experiences enhance consumer satisfaction on social platforms like Instagram, suggesting that businesses can harness these elements to improve customer interactions. Barnes and Pressey (2014) further contribute to this discussion by examining goal-oriented consumer behaviors in cyberspace, demonstrating how businesses can align their strategies with consumer motivations while mitigating risks like over-engagement. These findings complement SET by showing how companies can balance delivering value with addressing the potential negative impacts of digital interactions. Additionally, Hennig-Thurau et al. (2004) and Kim et al. (2009) emphasize the crucial role of trust and collaboration in sustaining satisfaction, reinforcing SET's principles of reciprocity in consumer-business relationships.

How can businesses navigate the complexities of virtual consumer behavior to create sustainable business practices that balance value creation, consumer satisfaction, and competitive advantage?

# A Study on the Automatic Patent Valuation by using Large Language Models

**Hun Park(Corr.)**

*Principal Researcher, Korea Institute of Science and Technology Information, South Korea*

**Jongtaik Lee**

*Principal Researcher, Korea Institute of Science and Technology Information, South Korea*

**Sungtae Yoo**

*Senior Researcher, Korea Institute of Science and Technology Information, South Korea*

## Abstract

This study aims to develop a logic that can automatically evaluate detailed assessment items necessary to estimate the economic value of patents by using a LLM(large language model) such as chatGPT4(Open AI)[1], LLaMa3(Meta)[2], Gemini(Google)[3] and so on. Traditional and widely used methods for estimating the economic value of patents include the DCF(Discounted Cash Flow) method and the RFR(Relief from Royalty) method. In the case of an in-depth patent valuation that is performed offline, its period is as long as 8 to 12 weeks, and its cost is expensive, around 15 million won. This is because there are about 40 detailed assessment items in the patent valuation, and it takes a lot of time and money to review various data to evaluate those items. Therefore, if a logic that can automatically evaluate the detailed assessment items based on natural language processing can be developed, it is highly expected that the time and cost of patent valuation can be reduced.

Several studies have explored the integration of artificial intelligence, particularly large language models (LLMs), into patent valuation processes. A research titled "Can Large Language Models Generate High-quality Patent Claims?" investigated the performance of LLMs in generating patent claims, demonstrating that claims based on patent descriptions outperform those relying solely on abstracts [4]. The article "AI-Driven Patent Valuation: Unveiling the True Worth of Your IP" discussed the transformative role of AI in patent evaluation, emphasizing how AI technologies are reshaping the discovery of innovation value [5]. Additionally, "Artificial Intelligence: Does It Work for Patent Valuation" explored the adoption of AI in evaluating the technical merits of patents, acknowledging both the potential and limitations of AI-driven methods in patent valuation [6].

# E-Governance in Transition - Lessons from Latvia for a Digitally Empowered Future

Dr. oec. Janis Caune

*Rīga Technical University, Latvian*

**Abstract**

# Open innovation of firms in the semiconductor value chain; Global patent analyses and case studies of firms in South Korea, Japan, and Germany

**JinHyo Joseph Yun(First and Corr.),**

*DGIST, and Open Innovation Academy*

**(Andreas Pyka)(Co-Corr.),**

*Hohenheim university*

**Xiaofei Zhao,**

*DGIST, and Open Innovation Academy*

**Yuri Sadoi,**

*Meijo university*

**Heongu Lee,**

*OSP, Korea*

## Abstract

This study answers to the following research question: How do semiconductor firms in the global value chain collaborate or execute open innovation with others? What kinds of differences are there among the value chains of firms in the semiconductor industry? Major research method which is used to answer to these research questions is the semiconductor patent analysis from the four-digit sub-IPC. Additionally, the interview with semiconductor firm on the usage of the open innovation channels such as supplier, customer, research institutes and others are used. The finding of this research is three. First, there are linkage between Korea global value chain and Japan domestic value chain, between China mainland domestic value chain and Taiwan global value chain, and between US domestic value chain and EU global value chain. Second, there are 3 circles which complete the global value chain of semiconductor. Third, the decoupling of any nations in the global value chain of the semiconductor without serious damage to the global value chain is impossible.

<Keywords>

Semiconductor, value chain, open innovation, Samsung electronics, Micron, Infineon, Kioxis, TSMC, SMIC

# Exploring the relationship between quality of employment and company performance

**Angelina Roša (Corr.).**

*Assistant Professor, Ph.D., Faculty of Engineering Economics and Management, Riga Technical University,  
Latvia*

**Natalja Lace**

*Professor, Dr oec, Faculty of Engineering Economics and Management, Riga Technical University, Latvia*

## Abstract

Purpose/ Research Question: This study investigates the relationship between employment quality and company performance, considering the external factors that may affect this relationship.

The study answers the following research questions: How does employment quality influence company performance? How does financial performance affect this relationship? What external factors enhance the relationship between quality of employment and company performance?

Key Literature Reviews (About 3~5 papers): The last two decades have been marked by a particular focus on developing criteria for high-quality working conditions and linking them to various aspects of a company's operations. However, the literature representing research in this area is rather scattered in academic publications, making the theoretical justification of the concept vague and the practical application limited (Burchell et al., 2014).

A significant breakthrough in this area was a framework of statistical indicators developed by an expert group of European statisticians and presented at a conference in 2015, which made it possible to measure the quality of employment. The framework is a set of 67 indicators in seven dimensions and reflects the quality of employment from the perspective of the employed person. These dimensions cover the basic human needs that can be met through work. They include safety and ethics of employment, income and benefits from employment, working time and work-life balance, security of employment and social protection, social dialogue, skills development and training, and employment relationships (UNECE, 2015). It is important to note that all dimensions are equally important, regardless of their ordinal number in the list. Quantitative assessment of employment should be complemented by an analysis of the quality of employment in all its aspects. Consequently, employment quality becomes an interdisciplinary concept in which different aspects of employment are analyzed together. (Almeida & Amoedo, 2020)

# Artificial Intelligence and Firm Idiosyncratic Risk: The Role of Ethical Governance

**Weian Li**

*Prof., China Academy of Corporate Governance, Nankai University, Tianjin 300071, China*

**Menglan Tang (Corr.)**

*Ph.D., China Academy of Corporate Governance, Nankai University, Tianjin 300071, China*

## Abstract

The widespread application of general artificial intelligence (AI), such as ChatGPT, has greatly impacted corporate governance in recent years. The utilization of generative artificial intelligence has altered the way "human-machine-system" interaction, triggering transformations in corporate organization and management processes. Idiosyncratic risk (IR) represents a significant risk that firms must address and manage. In the context of disruptive changes and increased uncertainty triggered by the widespread application of artificial intelligence, the impact of AI adoption on IR deserves in-depth study. In addition, the rapid development of AI has triggered a series of ethical concerns regarding society and the environment. Addressing the safety and risks of AI should be considered in corporate governance. Therefore, based on signalling theory, we examine the impact of corporate ethical governance structure and mechanism on the relationship between AI adoption and IR and explore how the interaction between technology and corporate governance affects corporate risk in the digital economy era.

Numerous studies have examined the economic consequences of adopting AI technology within enterprises. Some research indicates that implementing AI can enhance innovation levels (Babina et al., 2024), improve operational efficiency (Mishra et al., 2022), and positively impact overall enterprise performance (Sullivan and Wamba, 2024). However, there are also findings suggesting that AI may adversely affect a firm's value (Lui et al., 2022). The rapid integration of AI is expected to alter organizational structures and operational modes, which could expose companies to increased uncertainty. Additionally, potential security issues related to AI may present significant risk challenges for enterprises (Li et al., 2021).

## Adoption of Ideas from Innovation Contests – Evidence from a Korean Financial Institution

**Inhyouk Koo, Ph.D.,**

*Assistant Professor, Department of Global Service,  
Sookmyung Women's University, Seoul, Republic of Korea.*

**Shijith Kumar PM\*, Ph.D., (Corr.).**

*Assistant Professor, SolBridge International School of Business,  
Woosong University, Daejeon, Republic of Korea.*

**Ronny Estrella, Ph.D.,**

*Assistant Professor, SolBridge International School of Business,  
Woosong University, Daejeon, Republic of Korea.*

**Hojung Ha\*\*, Ph.D., (Corr.)**

*Director, Department of Innovative Education  
KDI School of Public Policy and Management, Sejong, Republic of Korea.*

### Abstract

Open innovation contests play a great role in the innovation process of a firm. The process of idea generation and selection remains a key to the success of such open innovation contests. Extant research on innovation contests has predominantly focused on the idea generation phase (Wang, et al., 2021; Cui, et al., 2019) and our study focusses on the idea selection and adoption phase. Specifically, we aim to contribute to the literature on open innovation by addressing this gap by investigating the question: what factors drive the selection and adoption of ideas sourced from an innovation contest within a focal firm? To address this question, this study uses data from an innovation contest organized by a large Korean financial institution to gain a comprehensive understanding of the idea selection and adoption process. Further, this study aims to develop a theoretical framework in order to expand our understanding of the contingent factors that may influence the process of idea adoption by a firm conducting innovation contests. We draw from innovation diffusion theory to understand the process of idea adoption by a focal firm by relying on the evaluation parameters from the real decision process in the organization and not on subjective external assessment.

Open innovation contests can be viewed as a process (Lichtenthaler, 2011) and the success of open innovation relies on finding the right way to organize and manage the process of idea generation and selection (King & Lakhani, 2013).



# Factors Affecting Corporate Efficiency in Korean Biopharmaceutical Industry - Focusing on Open Innovation types by Business Model

**Jaehoon Yang**

*Senior researcher, Advanced Institute of Convergence Technology, South Korea*

**Yun Gil, Roh(co-author)**

*Deputy Director, Ministry of Trade, Industry and Energy, South Korea*

**Eungdo Kim(Corr.)**

*Professor, Graduate School of Biomedical Convergence, Chungbuk National University, South Korea*

**Junseok Hwang**

*Professor, Technology, Management, Economics and Policy Program, Seoul National University, South Korea*

## Abstract

The Korean biopharmaceutical industry, characterized by intensive R&D investment, high risks, and strict regulatory environments, has shown remarkable growth potential. This study explores the factors influencing corporate efficiency within this industry, emphasizing the role of open innovation activities based on varying business models. Using data from the "Korea Bio Industry Survey" between 2015 and 2021, we analyzed the efficiency of two distinct business models: integrated production and research models versus research-focused models.

Our findings reveal that research-focused models exhibit higher management efficiency than integrated models, particularly among firms with significant sales volumes. Through Malmquist Productivity Index (MPI) analysis, efficiency improvements were observed over time, including during the COVID-19 pandemic, suggesting that management strategies played a more significant role than technological innovations. Furthermore, Tobit regression analysis highlights that non-technical cooperation, such as equity investments, positively influences corporate efficiency, whereas technical cooperation like joint research may require longer timelines to realize benefits.

This study underscores the necessity of tailored R&D investment strategies and the potential of non-technical open innovation in enhancing corporate efficiency. By providing actionable insights into the dynamics of business models and innovation activities, this research offers strategic guidance for stakeholders aiming to drive sustainable growth in the biopharmaceutical sector.

Keywords: Open Innovation, Corporate Efficiency, Biopharmaceutical Industry, Business Models, Korea

# An Overview Analysis of the Patent Trends of Foreign Patentees Based on Registered Patents in Korea

**YouEil KIM**

*Ph. D., Seoul Capital Areal Area Branch, Korea Institute of Science and Technology Information, South Korea*

**EuiSeob JEONG(Corr.).**

*Ph. D., Seoul Capital Areal Area Branch, Korea Institute of Science and Technology Information, South Korea*

## **Abstract**

An overview of the trends of foreign patentees was examined based on Korean registered patents from 2001 to 2024, covering a span of 24 years. Foreigners hold over 630,000 domestic patents, which account for about a quarter of all domestic patents. In terms of the countries of origin, there are 115 different countries, with over 660,000 foreign patentees (allowing for duplication), resulting in an average of 1.05 patentees per patent.

Looking at the number of foreign patentees by leading countries, Japan and the United States hold the largest shares, accounting for 41.3% and 26.1%, respectively. Including Germany, these three countries make up 75.2% of all foreign patentees, with these countries accounting for a large proportion of the total. The other top 5 countries include China and France. Examining the changes over the years in the number of foreign patentees, the total number of registered patents held by foreign patentees has been increasing, while the proportion of registered patents owned by foreigners in domestic patents peaked in 2001 and has since declined and plateaued.

Japanese patentees hold the absolute majority of registered patents, but the increase is relatively small in comparison to the overall increase in the total number of registered patents. The other countries have shown relatively more growth. Comparing the number of patents in 2001 to those in 2024, the total number of registered domestic patents has increased by approximately 3.69 times. Japan's increase is 1.46 times, the U.S. has increased by 2.95 times, Germany by 3.06 times, and France by 2.58 times, indicating a slower growth rate compared to the overall increase. On the other hand, China has experienced a substantial growth rate of 126.8 times, which is due to a significant increase in domestic patent registrations, but also because the number of registered patents in 2001 was very low (only 26 patents), contributing to a base effect.

**Keywords:** Registered Patents, Foreign Patentees, Overview Analysis, Leading Countries of Foreign Patentees, Trends in The Number and Proportion

# Individual AI Mechanism Design Based on the Open Innovation Dynamics

**JinHyo Joseph Yun(Corresponding author)\***

*Daegu Gyeongbuk Institute of Science and Technology (DGIST), 333, Techno Jungang Daero, Hyeonpung-Myeon, Dalseong-Gun, Daegu, 42988, Republic of Korea; Open Innovation Academy*

**Xiaofei Zhao**

*Daegu Gyeongbuk Institute of Science and Technology (DGIST), 333, Techno Jungang Daero, Hyeonpung-Myeon, Dalseong-Gun, Daegu, 42988, Republic of Korea; Open Innovation Academy*

**Heungju Ahn(Co-corresponding author)**

*Daegu Gyeongbuk Institute of Science and Technology (DGIST), 333, Techno Jungang Daero, Hyeonpung-Myeon, Dalseong-Gun, Daegu, 42988, Republic of Korea*

*He developed the mathematical model from the concept model by Professor Yun, and*

**KyungBae Park**

*Sangji university, 660 Woosan-Dong, Wonju-Si, 26359, Kwangwon, Republic of Korea*

## Abstracts

This study addresses key research gaps related to the singularity of artificial intelligence (AI). Specifically, this study investigates whether it is possible to create an individual AI derived from open innovation dynamics, while ensuring that it does not exceed its capabilities beyond the singularity threshold. It first develops a conceptual model of individual AI. Next, it introduces a mathematical framework that incorporates both the breadth dimensions of open innovation—such as reciprocity and location—and the depth dimensions, including customization and organization. Through simulations, it identifies the unique personalities of the individual AI and, using causal loop modeling, it covers its distinctive characteristics. It highlights the advantages of this approach over current general AI models.

<Keywords>

individual AI, general AI, singularity, open innovation dynamics, Artificial-Intelligence learning, inter-rationality

# Transforming Consumer Behavior: Utilizing Uses and Gratifications Theory to Promote Sustainable Economic Growth

**Ilze Jankovska, Ph. D. (Corr.)**

*Assistant Professor and Researcher at Riga Technical University, Faculty of Engineering Economics and*

**Dr. Deniss Ščeulovs**

*Professor at Riga Technical University, Faculty of Engineering Economics and Management,*

*Latvia*

## Abstract

This research examines how the Uses and Gratifications Theory (UGT) can be applied to transform consumer behavior to promote sustainable economic growth while enhancing competitiveness in the market. By exploring the different needs and motivations that drive consumer decisions, the study aims to understand how UGT can explain shifts in consumption patterns toward more sustainable practices. It investigates how media, information, and personal gratification influence consumers' choices regarding eco-friendly products and behaviors and how this, in turn, affects market competition. The research also explores the role of consumer satisfaction in encouraging long-term sustainable consumption, which contributes to both economic sustainability and a competitive edge in the marketplace. **The central research question is:**

How can the Uses and Gratifications Theory be used to transform consumer behavior toward sustainable consumption while enhancing market competitiveness and promoting sustainable economic growth?

This study aims to provide valuable insights into how consumer behavior can be shaped to support sustainable economic development and foster competitiveness in the global market.

This study applies the Uses and Gratifications Theory (UGT) to explore how consumer behavior can shift toward sustainable consumption while maintaining market competitiveness. Several key studies provide a foundation for understanding the motivations and actions that drive these changes.

Katz, Blumler, and Gurevitch (1973) introduced the UGT framework, highlighting how individuals actively seek gratification from media and information sources. This theory is pivotal for understanding how consumers derive satisfaction from sustainable consumption choices, influencing their decision-making processes.

# Explaining the Formation and Change of Product Meaning by the Social Cognitive Dynamic Theory in a Product Market: Applying in the Bottled Water and Water Purifier Product Market in Korea

**Dong Hawn Kim**

*Director, Environmental International Sustainable Institute, Republic of Korea*

**Sungho Lee**

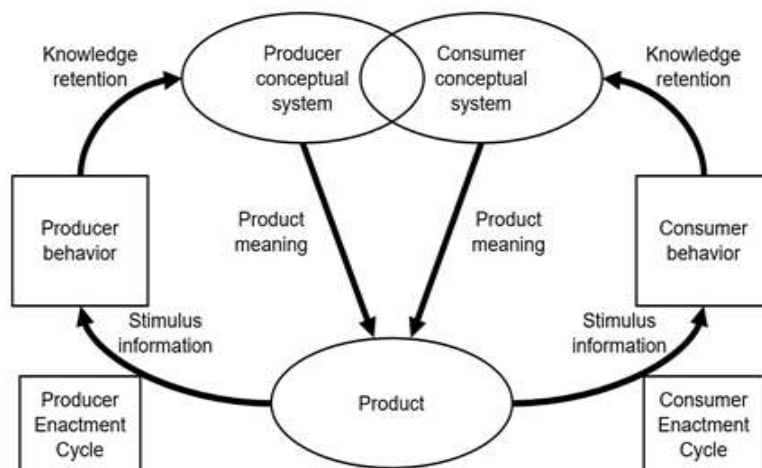
*Professor of Marketing, University of Seoul, Republic of Korea*

## Abstract

This study used the theory of socio-cognitive dynamics in a product market (Rosa, Porac, Runser-Spanjol, and Saxon 1999) for the following research issue. In the respective Korean markets of drinking water and water purifiers, the producer's behavior and conceptual system affect the producer's product meaning, and the meaning of the product is changed by an interactive process that affects consumer behavior, conceptual system, and product meaning. These interactive processes were considered.

**Conceptual Framework:** The following diagram shows the theory of socio-cognitive dynamics in a product market (Rosa et al. 1999), which is applied to the formation and change of product meaning in Korea's bottled water and water purifier product market.

❖ A Sociocognitive Market System



Rosa et al.'s Socio-cognitive Dynamics in a Product Market (1999)

# The Impact of Technological Regimes on Firm's Innovation Activities

**YuCheong Chon**

*Associate Research Fellow, Center for Big Science & Energy R&D Coordination, Korea Institute of S&T Evaluation and Planning (KISTEP), Republic of Korea*

**Kwangsoo Shin (Corr.)**

*The Catholic University of Korea, Republic of Korea*

## Abstract

Malerba (2002) proposed that sectoral systems of innovation (SSI) are a set of products and set of agents that interact with markets and research organizations to create, produce, and sell those products. The sectoral innovation system emphasizes the capabilities of innovation entities that consider the characteristics of each industry, structural and institutional factors of the industry, and networks between these. A sector is formed based on unique knowledge and technology, which comprises a common understanding of knowledge and technology among various actors within the industry. Nelson and Winter (1982) contended that technological regimes are rules created by technical and commercial incentives and limitations encountered by firms in uncertain and rapidly transforming environments, and that firms with the same regime pursue innovation activities in similar ways. In this manner, firms within the same industry engage in innovation activities in similar ways. Through this, the industrial landscape transforms.

In technological innovation, it refers to a cluster of production groups that share a common knowledge base between sectors and respond to specific demands. The knowledge base can be described as cumulateness, opportunity, and appropriability. Based on this framework, previous studies have analyzed differences in innovation processes by industry (sector) and diversity in innovation patterns by industry (Pavitt, 1984; Malerba and Orsenigo, 1996; Malerba, 2002). When sectoral innovation is obtained from a firm's unique knowledge base, the technological regime elements can be considered as characteristics of the firm's knowledge base. The firm's knowledge base is the knowledge and technology accumulated within the firm. It functions as the source of innovation activities. It is an asset developed through the firm's R&D activities, experience, and learning.

# A Study on the Effects of External Cooperation on Innovation Performance of Information Technology Firms in South Korea.

Daeyu Kim 1, Seung Hoo Jin 2,\*

1 Assistance Professor Department of computer science, Namseoul University ;

2 Research Center, Samsung SDS, Seoul, Korea;

\* Correspondence: jjamesjin@gmail.com; Tel.: +82-010-5128-6598

## Abstract:

The purpose of this study was to analyze how external collaboration activities and its growth stages of ventures companies related to information technology affect the technological performance of industrial property and patents performance. As a research method, a total of 819 Information venture companies were selected as a sample and regression analysis was performed. This study analyzes the technological innovation factors of Information Technology venture companies related to the information technology and proposes to expand the budget or external collaboration activities for technological success. In the future research direction, more discussion is needed on the contribution of companies to quantitative and qualitative growth.

Keywords: External collaboration activities, Technology innovation performance, Panel data analysis

# Capitalization of Contemporary Art: The Reverse Structure of Open Innovation, and the Price Paradox

**JinHyo Joseph Yun (First, and Corr.)**

*DGIST, and Open Innovation Academy, South Korea*

**Juhyun Eune (Co-Corr.),**

*Seoul National University, South Korea*

**Ziaofei Xhao**

*DGIST and Open innovation Academy, South Korea*

**Giovanna Del Gaudio,**

*University of Naples Federico 2, Italy*

**Valentina Della Corte,**

*University of Naples Federico 2, Italy*

**Burger-Helmchen Thierry,**

*University of Strasbourg, France*

## Abstract

### 1. Introduction

#### 1-1. Research Question

French Revolution in 1789 had triggered the disconnection between the tradition which includes religion, class system, culture or others, and the art consists of fine art, sculpture, architecture and others. And in the 19<sup>th</sup> century, Academia, exhibitions, critics, and connoisseur did their best to differentiate art from technique because technique which had been the base of art, were being destroyed by the multiproduction in the factory with the industrial revolution(Gombrich and Gombrich 1995). From, the impressionism which includes painters like Edouard Manet, Claude Monet, of Pierre-Auguste Renoir who had started from the Salon des Refuses in 1863, through Postimpressionism who painters include Vincent van Gogh, Paul Gauguin, Georges Seurat, to socialist realism which had appeared as communist art movement in 1934, modern fine art had been moved to the concrete impression or real nature or society(Mullins 2022). The fine art in the 20<sup>th</sup> and 21<sup>st</sup> century is evolving from the concrete being to existing being like Surrealism, Cubism, Abstract Expressionism, Pot art, Conceptual art, and the Post Modernism (Sartre, Richmond, and Moran 2022; DeWitte, Larmann, and Shields 2012).



# Disruptive Technology Identification Based on the Open Innovation Network: A Case of Virtual Travel

**Ben Zhang**

*Huazhong University of Science and Technology*

## **Abstract**

Theoretical Basis

Disruptive innovation theory: a typical theoretical framework illustrating the innovation mechanism

Practical Background

As for the tourism industry, under the dual effect of digital technology and the COVID-19 epidemic, it is urgent to transform, which is to use the advanced digital technology to build a virtual tourism scene, thus tourists can realize a new experience of home tourism.

Research question

What are the characteristics of disruptive technological innovation in the open innovation environment, which can enable decision-makers to identify and predict the future development trends?

This paper focuses on the development of relevant technologies and business models of virtual travel, and explores the disruptive technology evolution trend based on patent network data describing the open innovation environment.

Disruptive innovation mechanism and disruptive technology identification:

-Disruptive innovation theory has a very obvious network characteristics, which has some similarities with the open innovation theory ( Cozzolino et al., 2018; Schmidt and van der Sijde, 2022; Segers, 2022 ) .

Disruptive innovation evolution in the open innovation system:

-The network structure of the open innovation model can help innovation entities quickly search for decentralized resources, thus supporting the evolution of disruptive technologies (Inigo et al., 2020).

A series of studies have fully demonstrated the close relationship between open innovation and disruptive innovation, but there are still a lot of research gaps to explore from the perspective of patent networks.

## Analysis of effects before and after enactment of the National R&D Innovation Act in South Korea

Byung Yong Hwang 1\*, Sin Ree Kim 1, Eun Song Bae 2\*

1, Korea Institute of S and T Evaluation and Planning, Chungcheongbuk-do 27740, Korea;

2, Gyeonnam Institute, Yongi-ro, Changwon, Gyeonnam, Republic of Korea;

### Abstract

South Korea (hereafter Korea) has been enacting and implementing the National R&D Innovation Act since 2021 to reduce the administrative burden on research sites and expand researchers' autonomy.

The purpose of this study is to suggest various ways for improving the National R&D Innovation Act on the creation of a research immersion environment.

Specifically, this study focuses on three questions: First, Does the improvement of the National R&D Innovation Act contribute to the creation of an environment of research immersion? Second, If it does contribute positively, are there any research environmental variables that could enhance it more effectively? Third, What is the direction of improvement in the National R&D Innovation Act through various analyses ?

This study aims to present policy implications for the improvement of National R&D Innovation Act through perception survey analysis and TF-IDF(Term Frequency-Inverse Document Frequency) algorithm.

As for major literature reviews, from the institutional system for enacting the National R&D Innovation Act, first, Lee Jae-hoon and Yu Ji-eun (2020) discussed the necessity of legislation, significance of enactment, and implications regarding improving the institutional system for enacting the National R&D Innovation Act. Hong Ju-seok et al. (2022) examined how the research support organization accepts the institutional innovation of the National R&D Innovation Act for expanding autonomy and relieving administrative burden on research sites.

Second, with regard to improving the indirect cost system, Lee Jun-beom et al. (2018) presented an improvement plan focusing on the effect of adjusting the indirect cost ratio in the relationship between research funding sources and R&D performance.

# Analysis of open innovation performance and influencing factors of the Korean biopharmaceutical industry in bioclusters

**Miseon Kim**

*Ph.D candidate, Graduate School of Biomedical Convergence, College of Medicine, Chungbuk National University, South Korea*

**Eungdo Kim, PhD (Corresponding)**

*Professor, Graduate School of Biomedical Convergence, College of Medicine, Chungbuk National University, South Korea*

## Abstract

Background: the regional innovation system (RIS) is critical as a government policy to foster pharmaceutical companies by establishing an efficient ecosystem for organically collaborating within the cluster.

Aim: The purpose of this study is to examine how two clusters collaboration is changes depending on RIS stages, and how this change in collaboration affects the productivity of two clusters. First, productivity is calculated by SFA and Meta-frontier analysis for each company and cluster. First, this study divides four collaboration (Partnership) structures of California cluster and the Boston cluster from 2001 to 2016 which are RIS stages (Early(Research) stage or Late(Development) Stage) and Inner or Outer cluster partnership) and seeks to characterize the partnership behavior at each stage. Thirdly, this study examines the impact of the partnership structure on the productivity of firms using tobit analysis. Therefore, this study tries to find out whether cooperation between two companies in RIS enhances the efficiency of the company more than the internal company of RIS in cooperation with external companies in each two stages.

Data: Medtrack DB, WARDS

Method: two-stage approach (SFA/Meta-frontier Analysis, Tobit regression)

Qualitative growth (UN, Sustainable Growth Goals (SDGs))

is an economic activity that creates value without the input of material resources or environmental pollution.

Science, technology and innovation (STI) play an important role in sustainable development.

Knowledge creation → Technology innovation → Economic growth

## Innovation Ecosystem of Entrepreneurial Hospital

Harry Jeong<sup>1</sup>, Changhyeon Song<sup>2</sup>, Kwangsoo Shin<sup>3,\*</sup>

<sup>1</sup> Research Professor(Ph.D), Graduate School of Public Health and Healthcare Management, the Catholic University of Korea, the Republic of Korea;

<sup>2</sup> Research Fellow(Ph.D), Office of S&T Policy Planning, Korea Institute of Science & Technology Evaluation and Planning, the Republic of Korea;

<sup>3,\*</sup> Assistant Professor(Ph.D), Graduate School of Public Health and Healthcare Management, the Catholic University of Korea, the Republic of Korea;

### Abstract

This study empirically investigates the dynamic evolution of the innovation ecosystem of entrepreneurial hospitals through a comprehensive longitudinal analysis of academic research, patent activity, and clinical trials in the field of diabetes in Korea from 1995 to 2024. Unlike previous studies that mainly focus on university- or corporate-centered innovation ecosystems, this study systematically traces the evolutionary trajectory of entrepreneurial hospitals through network analysis of co-authorship patterns, researcher-sponsor networks based on registered patents, and clinical trial partnerships. The results show that over the past three decades, the diabetes research ecosystem in Korea has evolved from a dependent, simple, and decentralized structure to an independent, complex, and integrated network. Major domestic medical institutions, including Seoul National University Hospital, Seoul Asan Medical Center, Samsung Medical Center, and Severance Hospital, have emerged as central hubs in this transformation process. This study shows how hospitals' unique assets, such as living lab functions and access to clinical data, serve as catalysts for industry-academia-research collaboration, ultimately facilitating the transformation into entrepreneurial hospitals. This study provides empirical evidence that ecosystem maturation follows a gradual and cumulative process that requires sustained investment and relationship building rather than short-term interventions. For policymakers, we suggest establishing hospital innovation commercialization centers, deregulating the entrepreneurial activities of medical professionals, and establishing a governance framework for the use of medical data. For hospital administrators, we emphasize implementing a stepwise innovation strategy that evolves from clinical trial partnerships to comprehensive open innovation platforms.

**Keywords:** entrepreneurial hospital, innovation ecosystem, network analysis, clinical trial, technology commercialization

# Key Factors Impacting Cyber Resilience in SMEs: The Role of Open Innovation in Building Cybersecurity Awareness and Collaborative Defense Strategies

**Alona Bahmanova (Corr.)**

*Doctoral Student, Faculty of Engineering Economics and Management, Riga Technical University,*

**Natalja Lace**

*Prof. Dr. oec., Faculty of Engineering Economics and Management, Riga Technical University,*

## **Abstract**

The main authors' research focuses on the critical topics of cyber risks and cyber resilience in small and medium-sized enterprises (SMEs). Building on their previous work, the authors have clarified key concepts, including the distinctions between cyber risks, cyber threats, and cyber resilience, as well as how cyber resilience differs from cybersecurity. Additionally, a conceptual model of cyber resilience tailored to the SME environment has been proposed.

The current study is built on previous research and it seeks to analyze the factors that shape cyber resilience on a broad scale, as well as those that specifically influence the each of critical components of a comprehensive cyber resilience model. Through a review of existing literature, the study identifies four primary drivers of cyber resilience in SMEs: technological, organizational, external, and economic factors. Key aspects include the adoption of advanced technologies, the integration of open-source software, and the essential role of education and training in enhancing cybersecurity skills.

This work also highlights the pivotal role of open innovation in strengthening SMEs cyber resilience. In the rapidly evolving environment of cybercrime, malicious actors consistently strive to outpace those developing protective measures. This dynamic underscores the importance of fostering collaboration, experience sharing, and cooperation among SMEs representatives to advance cybersecurity and cyber resilience. Open innovation, coupled with open access to information, emerges as a critical enabler for building collaborative ecosystems that protect SMEs digital assets and develop effective cybersecurity and cyber resilience mechanisms.

By focusing on the understanding of factors that impact SMEs cyber resilience, this study provides actionable insights into leveraging open innovation to create robust, cooperative cybersecurity frameworks. These frameworks are essential for fostering resilience in an increasingly insecure digital world.

# The Role of Business Models in Bridging Technology and Market: Mathematical Modeling and Its Application to Artificial Intelligence

**JinHyo Joseph Yun (First and Corr.)**

*(DGIST)*

**Xiaofei Zhao**

*(DGIST)*

**HeungJu Ahn (Co-Corr.)**

*(DGIST)*

**KyunbBae park**

*(Sangji University)*

## **Abstract**

This study aims to examine the role of business models (BM) in the context of digital transformation. The research methodology includes the following steps. First, the study develops a mathematical model to describe the role of business models in bridging technology and market dynamics, including definitions, theorems, and axioms. Second, based on the mathematical model of BM as a "nudge," three key findings are identified: 1) BM as a nudge significantly reduces market search costs after reaching a certain threshold, referred to as the "Chesbrough point"; 2) BM as a nudge increases market size and diversity at any point following the "Chesbrough point"; 3) Despite having BM as a nudge, technology experiences a long tail before reaching a sufficient market. Third, the insights derived from the mathematical model are validated by applying the model to business model patents in the AI industry. Finally, the study discusses the theoretical implications of business models and their enhanced function as a nudge, particularly in the context of artificial intelligence and open innovation dynamics.

<Keywords>

Business Model, Nudge, Matching, Open Innovation, AI industry, "Chesbrough Point"

For more information, please contact:

• **Hosting Chair: Prof. Dr. JinHyo Joseph Yun (Tenured Principal Researcher, DGIST, Korea & Principal Professor of Open Innovation Academy)**

- Contact: [jhyun@dgist.ac.kr](mailto:jhyun@dgist.ac.kr), +82-53-785-4410
- Hosting Office: Dr. XIAOFEI ZHAO (Senior Researcher of DGIST, Korea & Professor of Open Innovation Academy)
- Contact: [qiaoke@dgist.ac.kr](mailto:qiaoke@dgist.ac.kr), +82-53-785-4414
- Address: DGIST, R4, 305 & 306, 333 Techno Jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea

• **Organizing Chair: Prof. Dr. JinHyo Joseph Yun (Organizing (& Emeritus) President of SOI)**

- Contact: [jhyun@gmail.com](mailto:jhyun@gmail.com), (mobile) +82-10-6697-8355
- Organizing Office: Dr. XIAOFEI ZHAO (Managing Director of SOI)
- Contact: [openinnovationtmc@dgist.ac.kr](mailto:openinnovationtmc@dgist.ac.kr), (mobile) +82-10-4072-8595
- Address: DGIST, R4, 305 & 306, 333 Techno Jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, 42988, Korea

# Open Innovation Dynamics

Capitalism, Socialism  
and Democracy in  
the 21<sup>st</sup> Century

*First corresponding  
author and editor*

**Jinhyo Joseph Yun**



**Let's conquer the growth limit of capitalism!**



**Journal of Open Innovation**  
Technology, Market, and Complexity



FOUNDING EDITOR-IN-CHIEF  
**JinHyo Joseph Yun**