VINUNIVERSITY

OPEN INNOVATION CONFERENCE HANOI, VIETNAM

OIC Conference Proceedings

2025 Theme: Open Innovation in the age of AI and Sustainability

SCIENCE, TECHNOLOGY AND COMMUNICATIONS
PUBLISHING HOUSE

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PREFACE

The 2nd International Open Innovation Conference (OIC 2025), held on December 1–2, 2025 in Hanoi, Vietnam, marks an important milestone in advancing global dialogue on open innovation in an era shaped by artificial intelligence and sustainability transitions. Under the theme **"Open Innovation in the Age of AI and Sustainability,"** this year's conference brings together a distinguished community of scholars, industry leaders, policymakers, entrepreneurs, and innovators from around the world to exchange insights, present pioneering research, and explore the emerging technologies that are reshaping economies and societies.

Founded by VinUniversity in collaboration with the Ministry of Science and Technology of Vietnam; Saïd Business School at the University of Oxford; the SC Johnson College of Business at Cornell University; and the Center for International Development at Duke University, OIC 2025 highlights the essential role of global cooperation and knowledge sharing. As nations and industries navigate unprecedented technological and environmental transformations, open innovation-rooted in cross-border collaboration and multidisciplinary approaches-stands at the core of sustainable, inclusive, and resilient growth.

This year, the conference received 52 submissions, with 31 papers successfully passing the double-blind review process and 21 papers selected for publication in this proceedings volume. These contributions reflect substantial academic and practical efforts to unlock new forms of collaboration, accelerate green and digital transitions, and strengthen societal resilience amid rapid advances in AI and mounting sustainability challenges.

The proceedings are organized into 4 thematic topic areas, each capturing a critical dimension of innovation in the AI era:

Topic Area I: Digital Health, Public Health Innovation & Precision Medicine (2 papers)

Topic Area II: AI Strategy, Digital Infrastructure & Innovation Ecosystems (5 papers)

Topic Area III: Agriculture, Climate Resilience & Carbon Markets (3 papers)

Topic Area IV: Smart Green Technologies, Energy Systems & Built Environment (3 papers)

Topic Area V: Governance, Education, Innovation for Development & Digital Society (8 papers)

Together, these sections offer a comprehensive view of the opportunities, disruptions, and governance challenges shaping innovation systems worldwide-from breakthroughs in digital health and green technologies to the evolution of semiconductor ecosystems and new models of sustainable development.

The research presented in this volume reflects forward-looking ideas and emerging scientific advancements from the global innovation community. We believe the evidence, perspectives, and insights shared here will serve as a valuable resource for academics, policymakers, entrepreneurs, and organizations committed to advancing responsible innovation and sustainable development.

We extend our sincere appreciation to all authors, speakers, reviewers, sponsors, and partner institutions whose expertise and dedication have made OIC 2025 possible. Their collective efforts continue to elevate the quality, reach, and impact of the conference.

Sincerely,

The Conference Organizing Committee

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TOPIC AREA I

DIGITAL HEALTH, PUBLIC HEALTH INNOVATION & PRECISION MEDICINE

Topic Area I: Digital Health, Public Health Innovation & Precision Medicine

SECURING INNOVATION IN WEARABLE FILAMENT SENSOR NETWORKS FOR PATIENT REHABILITATION: PROTECTING DATA AND AI MODELS IN THE VIETNAMESE CONTEXT

Mai Thanh Thai 1, 2

1 College of Engineering & Computer Science, VinUniversity, Hanoi 100000, Vietnam; Email:thanh.tm2@vinuni.edu.vn
2 VinUni-Illinois Smart Health Centre, VinUniversity, Hanoi 100000, Vietnam; Email:thanh.tm2@vinuni.edu.vn.

Abstract: *Wearable sensor networks are transforming rehabilitation by enabling continuous monitoring, real-time feedback, and patient-driven recovery outside clinical environments. The Accelerating Patient Rehabilitation via Wearable Filament Sensor Networks project introduces a hydraulic soft filament sensor (SFS) integrated into a flexible brace to measure joint angles and guide exercise performance through a mobile interface. While this innovation promises cost-effective and scalable rehabilitation, it also raises significant research security challenges related to patient data protection and artificial intelligence (AI) model resilience. This paper presents a security framework tailored to the Vietnamese regulatory context, particularly the Law on Cybersecurity (2018). Patient data security is achieved through AES-256 encryption and role-based access control, supported by on-device preprocessing to reduce exposure of raw signals. For AI model protection, techniques such as model watermarking and differential privacy are applied to prevent theft, safeguard sensitive rehabilitation data, and improve robustness against manipulation. Federated learning further enhances privacy by enabling decentralized model updates while retaining data locally on patient devices. By integrating these measures, the project advances both clinical rehabilitation and research security, offering a sustainable pathway for innovation. The proposed approach strengthens patient trust, aligns with national regulations, and establishes a blueprint for secure adoption of wearable sensing technologies in healthcare.*

Keywords: *Soft sensors; Rehabilitation; Data Protection; Artificial Intelligence Security; Cybersecurity Framework*

HEALTH INNOVATION FRONTIERS: BUILDING RESILIENT AND EQUITABLE HEALTHCARE-FROM NUTRITION TO NET ZERO WITH A DATA-DRIVEN GREEN FEEDING TOOL FOR CLIMATE-SMART INFANT AND YOUNG CHILD FEEDING POLICIES AND PROGRAMS

Tuan T Nguyen,[1,*] Julie Smith,[2,3,4] Phillip Baker,[4] Thao T Nguyen,[5] Roger Mathisen[3,6]

[1] VinUniversity, Hanoi, Vietnam

[2] Australian National University, Canberra, Australia

[3] University of Canberra, Canberra, Australia

[4] University of Sydney, Sydney, Australia

[5] Hanoi University of Sciences and Technology, Hanoi, Vietnam

[6] Mantis Mentor, Ho Chi Minh City, Vietnam

** Corresponding and Presenting author: tuan.nt@vinuni.edu.vn*

Abstract: *The Green Feeding Tool (GFT) is an innovative, evidence-based decision-support tool designed to quantify the environmental impacts of commercial milk formula (CMF) production and use, while elevating breastfeeding as a sustainable, as well as climate-resilient, feeding practice. In the context of rising CMF consumption and accelerating climate change, GFT addresses a critical data gap in health and environmental policy: the carbon and water footprints of infant and young child feeding (IYCF).*

Despite its ecological and economic significance, IYCF remains largely invisible in national climate strategies. Breastfeeding-a natural, low-carbon, resource-efficient practice-is undervalued, while CMF contributes substantially to greenhouse gas (GHG) emissions and water depletion. GFT makes these impacts visible and measurable, using preloaded datasets or user-defined inputs for flexibility.

The original GFT uses breastfeeding prevalence data, collected in five-year cycles, to estimate environmental footprints associated with CMF use among infants aged 0–6 months. For example, with an exclusive breastfeeding rate of 44.5% in 2019, CMF consumption in Vietnam generated 51.2–65.2 million kg of CO_2 emissions and consumed over 22.1 billion liters of water. The GFT provides estimates for 80 low- and middle-income countries and supports scenario modeling for all countries.

The enhanced version, GFT-E, integrates CMF sales data for more accurate and timely estimates, especially in high-income countries with limited breastfeeding data. In Vietnam, 2023 CMF sales for infants under six months totaled 4,857.4 tons, equating to 53.4–68.0 million kg of CO_2 emissions and 23.1 billion liters of water use. GFT-E provides estimates for almost 80 middle- and high-income countries and supports scenario modeling.

GFT has informed policy advocacy, supported inclusion of breastmilk in FAO and World Bank food systems and nutrition investments frameworks, and exemplifies how gender-just, data-driven tools can advance efforts towards sustainability and health equity.

Keywords: *breastfeeding, commercial milk formula (CMF), carbon footprint, water footprint, first-food system, Green Feeding Tool (GFT), infant and young child feeding (IYCF), innovation, sustainable development goals (SDGs).*

TOPIC AREA II

AI STRATEGY, DIGITAL INFRASTRUCTURE & INNOVATION ECOSYSTEMS

Topic Area II: AI strategy, Digital Infrastructure & Innovation Ecosystems

INVESTMENT IN THE DIGITAL INFRASTRUCTURE: A NEW GROWTH DRIVER FOR VIETNAM IN THE TECHNOLOGICAL ERA

Do Dieu Huong[1], Bui Nhat Huy[2]

[1] Institute of Vietnam and World Economy, Ha Noi, Viet Nam; E-mail: huongkhtc@gmail.com
[2] Institute of Vietnam and World Economy, Ha Noi, Viet Nam, E-mail: huybuinhat1811@gmail.com

Abstract: *The digital economy has emerged as a strategic growth engine for Vietnam's development, especially amid global supply chain restructuring and the boom of artificial intelligence. Although the Government has set ambitious goals-such as having the digital economy contribute 30% of GDP by 2030-capital mobilization still faces many challenges. There is a heavy reliance on the state budget and large corporations, while gaps between policy and implementation persist. This paper argues that capital investment in high-tech sectors, particularly in the digital economy, generates knowledge and innovation, becoming an engine for endogenous growth in line with Paul Romer's theory. The current situation in Vietnam shows a developing technology ecosystem, where state-owned enterprises like Viettel and VNPT are focusing on physical infrastructure, while private corporations such as FPT and VNG lead in software, digital services, and AI. These investments not only boost revenues but also create spillover effects, enhancing productivity and building national 'knowledge capital.'*

Keywords: *Digital Economy, Growth Engine, Investment.*

OPEN INNOVATION IN SMART STRUCTURAL MONITORING: INTEGRATING IOT, ARTIFICIAL INTELLIGENCE, AND DIGITAL TWIN FOR SUSTAINABLE INFRASTRUCTURE

Nguyen Hai Quang

Faculty of Mechanical-Automotive and Civil Engineering, Electric Power University, Ha Noi, Vietnam;
E-mail: quangnh@epu.edu.vn

Abstract: *This paper proposes a smart structural monitoring framework integrating the Internet of Things (IoT), Artificial Intelligence (AI), and Digital Twin (DT) technologies within the context of Open Innovation. The objective is to develop an intelligent monitoring and decision-making system that enables transparent data sharing and reuse among stakeholders within the Triple Helix ecosystem (Government–Industry–Academia). The framework is structured into three layers: (1) IoT data acquisition, (2) AI–DL intelligent processing, and (3) DT-based simulation. A blockchain-enabled open data mechanism is incorporated to ensure transparency and data integrity. Simulation results demonstrate that the proposed IoT–AI–DT framework improves structural damage prediction accuracy, reduces operational costs, and enhances sustainability-oriented decision-making through the Fuzzy–MAGDM model. The study highlights the framework's applicability to Vietnam's urban infrastructure management, contributing to sustainable development and digital transformation in the construction sector.*

Keywords: *Open Innovation; Internet of Things (IoT); Artificial Intelligence (AI); Digital Twin; Fuzzy–MAGDM; Sustainable Infrastructure*

SETTING SAIL FOR REGIONAL INNOVATION ECOSYSTEM DEVELOPMENT - DIGITALIZATION, TRUST, AND ORCHESTRATION AT THE PORT OF VAASA

Tomi Paalosmaa

Vaasa University of Applied Sciences (VAMK), Wolffintie 30, 65200 Vaasa, Finland; tomi.paalosmaa@vamk.fi &, University of Vaasa, Wolffintie 32, 65200 Vaasa, Finland; tomi.paalosmaa@student.uwasa.fi

Abstract: *Digital platforms and advanced technologies are increasingly framed as core enablers of innovation ecosystems. Smart port development follows the same trajectory, where technological, organizational, and sustainability transitions converge. However, little is known about how actors within small and medium-sized regional port contexts perceive the opportunities and risks of digitalization and how these perceptions shape the emergence of regional innovation ecosystems. This paper addresses this gap through in-depth qualitative research on the Port of Vaasa, a critical node for the surrounding region's industry. Based on 16 cross-sectoral interviews with key public and private actors, the research delves into how ecosystem participants frame digitalization, emerging technologies, data sharing, and the role of trust in enabling or hindering collaborative development. The findings reveal differences between public actors' emphasis on strategy, governance, and continuity, and private actors' focus on practicality, cost, and risk, alongside shared recognition of the need for trust, neutral orchestration, and sustainability-driven cooperation. By shedding light on these alignments and relational mechanisms, the paper highlights the human and institutional conditions affecting digital transformation in port ecosystems. The paper contributes to regional innovation ecosystem theory and advances understanding of smart port governance and orchestration. policies.*

Keywords: *regional innovation ecosystem; orchestration; digitalization; trust; sustainability; smart port*

USEFUL KNOWLEDGE IN ACTION: HOW ACCELERATOR LAB VIET NAM BRIDGES INNOVATION, SUSTAINABILITY, AND POLICY

***Nguyễn Tuấn Lương*[1]**

[1] *Head of Solutions Mapping at Accelerator Lab, United Nations Development Programme (UNDP), Hanoi,Viet Nam; E-mail: nguyen.tuan.luong@undp.org ; jimmyluong25@gmail.com*

***Abstract**: This paper synthesizes over five years of experience, research and work by the UNDP Accelerator Lab Viet Nam, detailing how the UN funded Lab uses social innovation methodologies, systems thinking and digital transformation to advance 17 sustainable development goals (SDGs). The study analyzes how structured innovation process, when institutionalize can generates "useful knowledge," a concept the 2025 Nobel Prize in Economic Sciences identified as essential for sustained economic growth. The Lab's mandate is in creating data and evidences that bridges the gap between theory and practice, in other words, why things work (propositional knowledge) and how to make them work (prescriptive knowledge). This method helps global UNDP development network and Vietnamese policymakers move from replicating international models to creating context-sensitive solutions. Case studies from Lab's work with National Innovation Center, Da Nang, Hue Cities and national stakeholders illustrate how policy experiment in waste management, digital public services, and social impact business can led to tangible changes in mindset, service delivery, and institutional capacity. The paper discusses the challenges of innovation approaches such as attribution, measurement, and scaling in complex policy environments. It also highlights the importance of a readiness to experiment, honest reflection, and adaptive learning. Limitations include the difficulty of quantifying long-term impact and generalizing findings across diverse contexts. The findings suggest that Open Innovation ecosystem thrives when institutions have dedicated team to produce "useful knowledge" and have methods to facilitate cross-sector collaboration, foster trust, and accelerate progress toward national development goals. The paper concludes with recommendations for embedding experimentation, evidence-based learning, and contribution-focused communication into Viet Nam's innovation ecosystem. This work can position the country as a regional leader in sustainable, inclusive innovation.*

CHIP TRADE IN A CHIP WAR

Cong S. Pham

Deakin Business School, Deakin University, Burwood, VIC, Australia E-mail: cpham@deakin.edu.au

***Abstract**: This paper investigates the early effects of the CHIPS and Science Act on U.S. trade in semiconductors and essential inputs. The analysis relies on two complementary empirical strategies. First, estimates from a triple-difference model suggest that, relative to other U.S. trading partners, semiconductor exports to China and imports of semiconductors and essential inputs from China significantly declined following the Act's enactment. Second, results from the synthetic control method indicate that actual U.S. trade with China in these products fell below the trajectories predicted by synthetic counterparts, pointing to a potential policy-related divergence. Placebo tests applied to U.S. trade with Brazil, Canada, India, and Mexico do not reveal similar divergences, lending support to the interpretation that the observed shifts are specific to the U.S. – China relationship. Overall, the evidence suggests that the CHIPS Act is contributing to a reorganization of U.S. supply chains by diversifying away from China and reinforcing trade with allies and friendly partners.*

***Keywords**: CHIPS and Science Act, industrial policy, global chip supply chain, semiconductor trade, technology and innovation policy*

TOPIC AREA III

AGRICULTURE, CLIMATE RESILIENCE & CARBON MARKETS

Topic Area III: Agriculture, Climate Resilience & Carbon Markets

SCALING GREEN FINANCE EDUCATION TO PRACTICE: AN AI-POWERED KNOWLEDGE MANAGEMENT PLATFORM PILOT FOR VIETNAM'S CARBON MARKET

Duy Anh Le[1], Tony Tin[1],Anh Dung Vu[1], Umberto Ansaldo[1], Khanh Thanh Tran[1]

[1] VinUniversity, Ha Noi, Viet Nam; E-mail: anh.ld@vinuni.edu.vn
[1] VinUniversity, Ha Noi, Viet Nam; E-mail: tony.t@vinuni.edu.vn
[1] VinUniversity, Ha Noi, Viet Nam; E-mail: dung.va@vinuni.edu.vn
[1] VinUniversity, Ha Noi, Viet Nam; E-mail: umberto.a@vinuni.edu.vn
[1] VinUniversity, Ha Noi, Viet Nam; E-mail: 25thanh.tk@vinuni.edu.vn

Abstract: *This paper examines the transition from AI-enhanced green finance education to practical application through the development of a Knowledge Management Platform preparing Vietnamese SMEs for participation in the emerging carbon market. Using a design-based research framework, the study documents the platform's co-creation with industry and government partners, describes its AI and NFC-enabled features, and assesses preliminary feedback from stakeholder consultations. The initiative demonstrates how academic institutions can mobilize knowledge beyond the classroom, bridging education and practice through technology-enabled solutions. Findings highlight the platform's potential to advance Vietnam's carbon market readiness by making complex mechanisms accessible to thousands of SMEs through personalized, multilingual guidance. This case contributes to understanding how universities can serve as catalysts for sustainable development by translating research into actionable tools that address urgent national priorities. The platform framework offers a replicable model for developing countries seeking to build SME capacity for climate action and carbon market participation.*

Keywords: *Carbon Market, SMEs, Green Finance, Vietnam, Sustainability*

PROMOTING SUSTAINABLE AGRICULTURAL VALUE CHAIN DEVELOPMENT IN VIETNAM IN THE CONTEXT OF DIGITAL TRANSFORMATION

***Ha Nguyen Thu*[1]**

[1] *Dong Tien Science and Technology Company Limited, Hanoi, Vietnam;*
E-mail: nguyenthuha_dongtien@hus.edu.vn

Abstract: *In the era of rapid digital transformation, the agricultural sector in Vietnam faces both opportunities and challenges in enhancing its value chain toward sustainability. This study investigates how digital technologies can promote the development of sustainable agricultural value chains, with a focus on Vietnam's context. By employing a qualitative approach through literature review, analytical synthesis, and SWOT analysis, the research identifies key strengths, weaknesses, opportunities, and threats affecting agricultural value chains amid digital transformation. The study also incorporates in-depth interviews with 20 key stakeholders, including enterprise owners, cooperative leaders, and exemplary farmers in Dak Nong (now part of Lam Dong province) to enrich the contextual understanding of digital transformation in agricultural value chains. The findings reveal that although digital adoption has improved productivity and connectivity among actors, significant barriers remain, including fragmented production, limited technological capacity among smallholder farmers, and underdeveloped logistics infrastructure. To address these challenges, the study proposes policy recommendations centered on: (i) supporting digital infrastructure investment, (ii) improving human capital and training, and (iii) strengthening institutional coordination and access to finance. The study contributes to the literature by offering context-specific insights and practical policy implications to guide the digital transition of agriculture in developing countries.*

CONCEPTUALISING A HOUSEHOLD RESILIENCE INDEX FOR VIETNAM: A FRAMEWORK FOR CLIMATE ADAPTATION AND POLICY INTEGRATION

Duy Anh Le[1], Anh Dung Vu[1], Hai Le[2], Anh Ngoc Le[3]

[1]Faculty, VinUniversity, Ha Noi, Viet Nam; E-mail: anh.ld@vinuni.edu.vn
[1]Faculty, VinUniversity, Ha Noi, Viet Nam; E-mail: dung.va@vinuni.edu.vn
[2]Faculty, Swinburne University of Technology, Ha Noi, Vietnam; E-mail: hailv16@fe.edu.vn
[3]Independent Researcher, Ha Noi, Viet Nam; E-mail: lengocanh312@gmail.com

Abstract: *Households in climate-exposed settings such as Vietnam face recurrent floods, storms and slow-onset hazards that challenge their capacity to cope and recover. Existing resilience assessments in Vietnam are typically conducted at regional levels and provide limited insight into household-level differences. This paper develops a conceptual and methodological framework for a Household Resilience Index (HRI) tailored to Vietnam. Drawing on the Sustainable Livelihoods Framework, FAO's RIMA-II and UNDP's CoBRA, the HRI organises indicators into five dimensions: economic, social, physical, environmental and institutional resilience. The proposed indicator set reflects Vietnam's hazard profile and governance structures and can be implemented within existing statistical instruments such as the Vietnam Household Living Standards Survey. We outline a four-step approach-indicator selection, normalisation, weighting and aggregation, and validation-and introduce a simple aggregation formula. A brief illustrative example from a flood-prone commune in the Mekong Delta demonstrates how the HRI can reveal resilience differences that income alone cannot capture. The framework serves as a foundation for future empirical application and for integrating household-level resilience metrics into Vietnam's climate adaptation and social protection policies.*

Keywords: *Household Resilience Index; climate vulnerability; composite indices; sustainable development.*

TOPIC AREA IV

SMART GREEN TECHNOLOGIES, ENERGY SYSTEMS & BUILT ENVIRONMENT

Topic Area IV: Smart Green Technologies, Energy Systems & Built Environment

RAPID PREDICTION OF OPTIMAL LOW-GWP REFRIGERANT MIXTURE COMPOSITIONS USING A EUCLIDEAN DISTANCE MODEL

***Dang Van Lai*[1]**

[1]*Faculty of Refrigeration Engineering, Phu Yen Vocational training College, Dak Lak, Viet Nam;*
E-mail: dangvanlai@cdnpy.edu.vn

Abstract: *The rapid transition toward environmentally sustainable refrigeration technologies has increased the need for predictive tools that can identify low Global Warming Potential (GWP) refrigerant mixtures with high thermodynamic efficiency. This study develops a multi-objective mathematical model for the rapid prediction of the optimal composition of low-GWP refrigerant mixtures based on the Euclidean distance between thermodynamic parameters of candidate mixtures and a reference refrigerant. The model considers energy efficiency (COP), specific cooling capacity, suction and discharge pressures, and compression ratio as optimization criteria. Application of the model to the replacement of R134a under standard operating conditions reveals three potential mixtures - RM1, RM2, and RM3. These mixtures exhibit approximately 6% higher COP and 11-fold lower GWP compared to R134a, along with reduced suction pressure and compression ratio. RM1 demonstrates the most balanced performance, combining high COP and specific cooling capacity. The proposed model offers a practical and efficient tool for the preliminary design and optimization of next-generation sustainable refrigerant mixtures, highlighting the effectiveness of computational modeling and open innovation principles in accelerating the development of green technologies.*

Keywords: *multi-objective optimization; low-GWP refrigerants; energy efficiency; algorithmic design.*

INTEGRATING RENEWABLE ENERGY SYSTEMS INTO SUSTAINABLE BUILDING CONSTRUCTION

Nguyen Hai Quang
Faculty of Mechanical-Automotive and Civil Engineering, Electric Power University, Ha Noi, Vietnam;
E-mail: quangnh@epu.edu.vn

Abstract: *The construction industry is currently one of the largest contributors to global energy consumption and greenhouse gas emissions, significantly impacting climate change and the depletion of natural resources. In this context, the shift toward sustainable and environmentally friendly building practices has become an inevitable trend. One prominent solution is the integration of renewable energy systems-such as solar, wind, and geothermal-into buildings to reduce reliance on fossil fuels and move toward carbon-neutral construction. This paper presents the scientific and practical basis for integrating renewable energy into modern building projects. Key contents include an overview of green building standards and the role of renewable energy, analysis of widely adopted technologies such as Building-Integrated Photovoltaics (BIPV), small-scale urban wind turbines, and solar thermal systems. The paper also discusses selected applications from Vietnam and around the world, evaluates the environmental and economic benefits, and addresses technical and policy challenges, along with development recommendations tailored to local conditions.*
Keywords: *Renewable energy; green building; solar power; BIPV; sustainable development; energy efficiency; technology integration.*

APPLICATION OF IOT AND AI IN MONITORING STRUCTURAL LOAD-BEARING CAPACITY OF BUILDINGS

Nguyen Hai Quang

Faculty of Mechanical-Automotive and Civil Engineering, Electric Power University, Ha Noi, Vietnam;
E-mail: quangnh@epu.edu.vn

Abstract: *In the context of increasing demands for safety and efficiency in the construction industry, real-time monitoring of structural load-bearing capacity has become increasingly critical. The integration of Internet of Things (IoT) and Artificial Intelligence (AI) technologies offers an advanced solution for continuously and accurately collecting, processing, and analyzing structural data. This paper provides an overview of the application of IoT and AI in structural health monitoring systems, including types of sensors, data transmission platforms, machine learning models, neural networks, and early warning systems. Additionally, the paper evaluates the economic and environmental potential, as well as technical and policy challenges, in deploying such solutions in Vietnam. Several practical examples are presented to demonstrate the effectiveness and applicability of the approach.*

Keywords: *Internet of Things (IoT), Artificial Intelligence (AI), structural health monitoring, sensors, real-time data, smart buildings.*

TOPIC AREA V

GOVERNANCE, EDUCATION, INNOVATION FOR DEVELOPMENT & DIGITAL SOCIETY

Topic Area V: Governance, Education, Innovation for Development & Digital Society

FOSTERING INNOVATION THROUGH OPEN CULTURES: THE CASE OF VIETNAMESE SMEs IN A SMART AND OPEN ECONOMY

Manh Tuan Kim[1], Quang Minh Nguyen[2]

[1]Vietnam National University Hanoi - University of Education, Vietnam,
https://orcid.org/0000-0002-3626-4513, E-mail: tuankm@vnu.edu.vn
[2]Foreign Trade University, Vietnam, E-mail: nq.minh089@gmail.com

Abstract: *This study examines how open organizational culture fosters innovation among Vietnamese small and medium-sized enterprises (SMEs) operating within a smart and open economy. Open culture is conceptualized across three interrelated dimensions: (1) participation and involvement, (2) adaptability and learning, and (3) risk-taking and experimentation. A quantitative survey was conducted with 295 SMEs across manufacturing, services, and technology sectors. Data collected from senior managers through a 25-item Likert-scale questionnaire were analyzed using ordinary least squares regression, with reliability and validity confirmed by Cronbach's alpha and exploratory factor analysis. The results indicate that all three cultural dimensions significantly predict product and process innovation, with adaptability exerting the strongest effect, followed by participation and risk-taking. The model explains 46 percent of the variance in innovation outcomes, emphasizing the decisive role of cultural openness in shaping creative performance. This study extends existing theory by validating a multidimensional cultural framework in an emerging economy and reveals the contextual nuance of limited risk tolerance in high power-distance settings. Practical implications highlight the importance of fostering adaptability, inclusive participation, and supportive experimentation to enhance innovation under resource constraints. The findings of this study offer valuable insights for enterprise leaders and policymakers aiming to strengthen innovation capacity through cultural transformation.*

Keywords: *Open organizational culture; Innovation outcomes; Vietnamese SMEs; Smart economy; Regression analysis.*

CORPORATE DIGITAL RESPONSIBILITY AND ESG COMPLEMENTARITIES: EVIDENCE FROM SMES IN HO CHI MINH CITY

Truong Anh Tuan[1,2], Nguyen Thi Hoang Anh[3]

[1] Faculty of Management and Marketing, Gia Dinh University, Ho Chi Minh City, Vietnam;
[2]PhD Candidate, Lac Hong University, Bien Hoa City, Vietnam.
E-mail: tuanta@giadinh.edu.vn; truonganhtuan2504@gmail.com
[3]Faculty of Management and Marketing, Gia Dinh University, Ho Chi Minh City, Vietnam;
E-mail: anhnth@giadinh.edu.vn

Abstract: *Corporate Digital Responsibility (CDR) is gaining recognition as a key dimension of corporate sustainability, reflecting how firms ethically manage digital technologies and data. This study explores the role of CDR in enhancing Environmental, Social, and Governance (ESG) performance among small and medium-sized enterprises (SMEs). Based on stakeholder and signaling theories, we develop a structural model linking CDR, digital trust, ESG performance, and regulatory pressure. Survey data from 120 SMEs in Ho Chi Minh City were analyzed using PLS-SEM. The results show that CDR has a positive effect on both ESG performance and digital trust, and that digital trust, in turn, improves ESG outcomes. Digital trust also serves as a partial mediator between CDR and ESG performance. Furthermore, perceived regulatory pressure strengthens the impact of CDR on ESG outcomes. These findings underscore the synergy between digital responsibility and sustainable business performance and offer practical insights for SMEs and policymakers pursuing innovation-led, responsible growth.*

Keywords*: Corporate Digital Responsibility; ESG Performance; Digital Trust; Regulatory Pressure; SMEs.*

CORPORATE DIVERSITY, EQUITY, AND INCLUSION (DEI) IN MULTIETHNIC SOCIETES: FROM AMERICA'S BROAD-BASED TO MALAYSIA'S GENDER-FOCUSED PARADIGMS

Lum Triny[1], Pieter E. Stek[2]

[1] Asia School of Business, Kuala Lumpur, Malaysia; E-mail: triny.lum@asb.edu.my
[2] Asia School of Business, Kuala Lumpur, Malaysia; E-mail: pieter.stek@asb.edu.my

Abstract: *This paper compares how Diversity, Equity, and Inclusion (DEI) is conceptualized and communicated in Malaysia and the United States; two multiethnic societies with divergent DEI trajectories. Drawing on 198 news articles from Yahoo! Finance (USA) and The Edge Malaysia, published between 2021 and 2024, the research uses quantitative text analysis to examine word frequency, thematic emphasis, and discourse structure. The findings reveal a stark contrast: while US business news media frame DEI as an expansive, socially-rooted initiative encompassing gender, race, and sexual identity, Malaysian media articulates DEI narrowly, focusing almost exclusively on gender equity within corporate leadership contexts. This divergence is partly shaped by each country's historical and sociopolitical context-civil rights and social movements in the US versus Malaysia's legacy of affirmative action and cautious ethnic politics. Word co-occurrence networks further underscore these differences: US discourse emphasizes individual empowerment and minority rights, while Malaysia centers sustainability, corporate governance, and business imperatives. Notably, there is little public backlash to DEI in Malaysia, possibly due to its limited scope and alignment with corporate sustainability goals. This paper highlights how global DEI discourse is refracted through local sociopolitical filters, cautioning business leaders against universal assumptions in cross-cultural DEI strategies.*

AI IN EDUCATION: APPLYING UNESCO'S "LOCAL CONTEXTS, LANGUAGES, AND CULTURES" APPROACH IN VIETNAM

Umberto Ansaldo[1,2], Lisa Lim[2], Tony Tin[3], Antonio Martin Losavio[1], Nhu Dinh Ngoc Anh[1], K. David Harrison[1,2,4]

[1] College of Arts and Sciences, VinUniversity, Hanoi, Vietnam;
[2] UNESCO Chair in Environmental Leadership, Cultural Heritage, and Biodiversity, VinUniversity, Hanoi, Vietnam;
[3] VinUniversity Library, VinUniversity, Hanoi, Vietnam
[4] corresponding author; E-mail: david.h@vinuni.edu.vn

Abstract: *UNESCO's Digital Learning Week 2025 highlighted the urgent need for AI in education to be human-centered, ethical, and equitable. A consensus emerged among the assembled global education leaders in Paris to "promote AI that reflects local contexts, languages, and cultures" (UNESCO, 2025). In this case study, we-as a diverse group of educators working in Vietnam-respond to the UNESCO initiative by considering how we can effectively implement this high-level recommendation at VinUniversity, an aspiring English-medium university in Vietnam and the focus of our case study. The global homogenization of knowledge, and unequal inclusion of languages like Vietnamese in large language models presents a challenge to educators working in multilingual settings in Vietnam. AI systems are known to embed biases from dominant languages and cultures, risking marginalization of local knowledge and neglect of cultural values (Bender et al, 2021). Preserving linguistic and cultural diversity via the AI tools we adopt in Vietnam is thus critical for inclusivity, relevance, and learner engagement. Educational innovation at VinUniversity requires AI tools that will support-rather than supplant-local teaching traditions and community knowledge.*
Keywords: *AI in education; Vietnam; multilingual AI; translanguaging; EMI; digital humanities*

EVALUATING KNOWLEDGE AND TECHNOLOGY TRANSFER FROM HIGHER EDUCATION INSTITUTIONS IN THE ERA OF ARTIFICIAL INTELLIGENCE AND DIGITAL TRANSFORMATION: INTERNATIONAL EXPERIENCES AND LESSONS FOR VIETNAM

Hieu Tran Doan[1], Long Pham The[1], Hai Nguyen Hoang[2]

[1] Mechanical Engineering; Le Quy Don Technical University, Hanoi, Vietnam;
E-mail: hieutd@lqdtu.edu.vn; longpt@mta.edu.vn

[2] Department of Research and Training Management, Viet Nam Institute of Science and Technology Strategy, Ha Noi, Viet Nam; E-mail: hainh@most.gov.vn

Abstract: *In the context of rapid advances in artificial intelligence and digital transformation, evaluating the performance of knowledge and technology transfer in higher education institutions has become increasingly important for strengthening national innovation systems. Grounded in an integrated theoretical framework that combines the Triple Helix model and the National Innovation System perspective, this study synthesizes and compares international experiences from the United States, the European Union, China, and several ASEAN countries to identify the prevailing approaches, strengths, and limitations of current evaluation models. The findings indicate that frameworks such as AUTM Metrics, HEInnovate, the WIPO Global Innovation Index, and China's National Statistics on Science and Technology of Higher Education Institutions have significantly contributed to data standardization and policy transparency. However, they remain largely output-oriented, failing to fully capture the qualitative, social, and absorptive dimensions of knowledge and technology transfer. In recent years, the emergence of AI and big data analytics has brought fundamental changes, shifting evaluation systems toward dynamic, real-time, and evidence-based assessments. Based on these insights, the study proposes several implications for Vietnam, emphasizing the need to establish an integrated institutional framework, an interoperable data infrastructure, and a professional expert network to build an intelligent evaluation ecosystem supporting higher education governance and national innovation.*

Keywords: *Knowledge and Technology Transfer; Evaluation Framework; Artificial Intelligence; Digital Transformation; Higher Education Institutions.*

OPEN INNOVATION FOR CONSTRUCTING A GREEN-DIGITAL-HUMANISTIC ENDOGENOUS GROWTH MODEL: THE CASE OF VIETNAM

My Nguyen Trang, Hoang[1], Van Hoan, Hoang[2]

[1] College of Arts and Science, VinUniversity, Hanoi, Vietnam; E-mail: trang.hmn@vinuni.edu.vn

[2] Ho Chi Minh National Academy of Politics, Hanoi, Vietnam; E-mail: hoanhvct@gmail.com

Abstract: *In the context where traditional growth models relying on physical capital, low-cost labor, and resource exploitation increasingly reveal structural limitations, this study proposes an expanded endogenous growth model built upon three pillars: green, digital, and humanistic. Drawing on endogenous growth theories by Romer (1990), Lucas (1988), and Aghion & Howitt (1992), Marx's (1867) dialectics of socio-economic formations, and Toffler's (1980) futures studies, the research develops an extended production function* $Y = F(G, K_n, C, R, D, H, L)$*. The study adopts an interdisciplinary approach that integrates growth economics, institutional theory, and data science, using Vietnam as a case study. Party documents, national policies, and empirical evidence from the Vietnam Statistical Yearbook, UNDP, OECD, and WIPO show that the seven endogenous variables have been gradually institutionalized, reflecting a transition from a resource-based growth model toward one that leverages knowledge, data, artificial intelligence, and cultural values. The core contribution of this research lies in conceptualizing endogenous growth as a process of "adding new variables," while emphasizing the intermediary role of institutions and open innovation in driving systemic transformation. The Vietnamese case demonstrates that green, digital, and humanistic factors can effectively become drivers of growth even within a transitional economy. This not only enriches ongoing theoretical debates but also provides useful policy implications for developing countries seeking to strengthen endogenous growth drivers. Overall, the study contributes to shaping the global discourse on endogenous growth for sustainable development in the digital era.*

Keywords: *endogenous growth; green–digital–humanistic; open innovation; economic institutions; model; Vietnam.*

UNLOCKING THE POTENTIAL OF VIETNAM'S TOURISM SECTOR: AN ASSESSMENT OF INNOVATION AND ITS ECONOMIC, SOCIAL, AND ENVIRONMENTAL IMPACTS

Phan Thi Thuc Anh[1], Bui Hong Anh[2], Pham Nguyen The Anh[3], Tran Thanh Binh[4]

[1,2,3,4]Smart Green Transformation Center, VinUniversity, Vietnam

Abstract: *The tourism sector plays a crucial role in Vietnam's economy, projected to contribute approximately 8% to the national GDP by 2034 (World Travel & Tourism Council, 2023). Despite its contributions, the industry has not yet realized its full potential, underscoring the need for a transformative approach. The Vietnamese government acknowledges that science, technology, and innovation are essential drivers of tourism development; however, a comprehensive examination of innovation within this sector is still lacking.*

This study seeks to evaluate the current state of innovation in Vietnam's tourism industry and analyze its economic, social, and environmental impacts. A research framework was developed to examine the relationship between innovation and societal and environmental outcomes, utilizing a mixed methods approach that includes secondary data analysis, focus group discussions with policymakers and industry leaders, and a survey of 30 experts.

The findings highlight notable innovations in government policy, business models, and the promotion of smart tourism and sustainable development practices. Experts rated the industry's innovation level as slightly above average, suggesting moderate engagement in key areas. Incremental innovation was widespread and showed positive correlations with societal and environmental impacts, while disruptive innovation was less common. The sector demonstrated strengths in areas such as fair compensation, biodiversity conservation, and collaborative initiatives for social impact.

Nonetheless, significant opportunities for improvement remain, particularly in harnessing financial mechanisms to drive innovation, implementing effective carbon reduction strategies, and embracing circular economy practices The study concludes with strategic recommendations to enhance innovation in Vietnam's tourism sector, positioning it for sustained competitiveness and long-term growth.

Keywords: *Tourism Industry; Digital Transformation; Smart Tourism; Green Transformation*

FEAR OF MISSING OUT IN SOCIAL COMMERCE AND REPURCHASE INTENTION: THE MEDIATING ROLES OF BRAND TRUST, CUSTOMER SATISFACTION, AND ENGAGEMENT, AND THE MODERATING ROLE OF SELF-CONTROL

***Nguyen Duy Phuong*[1,*]**

[1] PhD Student, Industrial University of Ho Chi Minh City, 12 Nguyen Van Bao street, Hanh Thong Ward, HCMC, Vietnam; E-mail: phuongnd23001@pgr.iuh.edu.vn

[1]Faculty of Management - Marketing, Gia Dinh University, 371 Nguyen Kiem, Hanh Thong Ward, HCMC, Vietnam E-mail: phuongnd@giadinh.edu.vn;

(*)Corresponding author: phuongnd23001@pgr.iuh.edu.vn

Abstract: *The rapid expansion of social commerce has transformed consumers into emotionally connected participants who are constantly exposed to peer activities and promotional stimuli, intensifying the fear of missing out (FoMO) and shaping their repurchase intentions. Grounded in the integrated Stimulus–Organism–Response (SOR) and Stress–Strain–Outcome (SSO) frameworks, this study explores the dual psychological roles of FoMO as both a motivational stimulus and a stressor that drives online repurchase behavior. Using data collected from active Vietnamese social commerce users, structural equation modeling (PLS-SEM) was applied to test the mediating roles of trust, satisfaction, and engagement. The findings reveal that FoMO positively influences consumer trust and emotional engagement, which, in turn, enhance satisfaction and repurchase intention consistent with prior studies on digital engagement and impulsive buying [1]; [2]; [3]. However, excessive FoMO can also induce emotional strain and fatigue, partially reducing satisfaction [4]; [5] [6]. This dual effect highlights that FoMO is not solely detrimental but context-dependent, reflecting both hedonic stimulation and stress-induced compulsion [7]; [8]. Theoretically, this study extends SOR-based consumer psychology by demonstrating FoMO's ambivalent function in social commerce. Practically, it suggests that platforms should balance emotional engagement with responsible marketing to prevent FoMO-driven exhaustion.*

Keywords: *Fear of missing out (FoMO), social commerce, trust, satisfaction, engagement, repurchase intention, SOR, SSO.*

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